



UNIVERSITÄT PADERBORN
Die Universität der Informationsgesellschaft

DISSERTATION

On the long-lasting effects of colonial conditions on Sub-Saharan Africa's performance, and why do historical patterns persist?

Vorgelegt von

YOUSOUF SANGARE, MASTER OF SCIENCE

Zur Erlangung des akademischen Grades

DOKTOR DER WIRTSCHAFTSWISSENSCHAFTEN

– DOCTOR RERUM POLITICARUM –

Vorgelegt bei der

FAKULTÄT FÜR WIRTSCHAFTSWISSENSCHAFTEN

Betreut durch

PROF. DR. THOMAS GRIES (1. GUTACHTER)

PROF. DR. MARTIN SCHNEIDER (2. GUTACHTER)

PADERBORN, 19. FEBRUAR 2024

Acknowledgments

I would like to take this opportunity to praise Almighty God, the Creator of all that we enjoy on this earthly plane, including the gift of life. My thanks and praise also go to my parents – Adja Fanta Keita and Ismael Sangare – and especially to my loving aunt Adja Beyla Fanta Keita (may her soul rest in peace), who guided my youthful education with unconditional love and untiring support. First and foremost, I would like to thank my supervisor, Prof. Dr. Thomas Gries, whose unwavering support, patience and dedication played a crucial role in the successful completion of this dissertation. I would also like to thank the members of my dissertation committee, namely Prof. Dr. Martin Schneider, Prof. Dr. Henrik Schmidt, Prof. Dr. Claus-Jochen Haake and Dr. Edem Adotey.

My thanks also go to Prof. Dr. Ewout Frankema and Dr. Edem Adotey, whose unwavering support was crucial in assessing and guiding me through the historical landscape of African economic and colonial history. My thanks also go to Ms. Rosenau and Dr. Margarete Redlin who helped me replicate my data set and finalize my empirical analysis respectively. I would also like to thank my colleagues in the Macroeconomics and International Business Cycles Department and our ever-dynamic secretary, Ms. Heike Brenke.

I would also like to take this opportunity to thank Tiranke Magassouba, Marion Sangare, Aramatou Kone, NBemba Tamba (Bems), Mohamed Djamba Dioubaté, the Tounkara family, Lamine Condé and the entire Condé family for supporting me in good times and in difficult times, for always supporting and encouraging me and, above all, for having my back in every situation. My sincere thanks also go to my friends, whom I have not mentioned by name, and to all my brothers and sisters for their unwavering support, especially Aminata Sangare.

Abstract

I examine the current development performance of sub-Saharan Africa and find that the region lags significantly behind other regions of the world in almost all aspects of development, particularly in the areas of economic development, governance, and human development. I examine the reasons for this difference from an institutional perspective by reviewing the historical development literature. The investigation traces the region's current institutional performance back to the period of colonial state-building from which Africa's current institutions emerged. The research suggests that colonial taxation played a crucial role in the creation of today's institutions and the dualistic institutional framework that we observe today.

To assess the impact of colonial taxation on contemporary institutional performance, I hypothesized that patterns of colonial tax extraction influence contemporary institutional performance. To substantiate my hypothesis, I created a unique dataset encompassing 30 former French and British colonial territories in sub-Saharan Africa. This dataset includes comprehensive data on direct, indirect, and other forms of taxation as well as total colonial expenditures on public goods such as justice, education, health, public works, and law enforcement. In the interest of analytical precision, I have converted all data values into a uniform currency.

Having constructed my data set, I empirically examine the relationship between the variables of interest — colonial tax revenues — and contemporary institutions. To this end, I regress colonial tax revenues, measured as the sum of direct, indirect, and other taxes, on contemporary institutional performance as measured by the six aggregates of the World Bank's governance indicators. The results show that greater extraction of colonial taxes from the local population is associated with a deterioration in contemporary institutional performance.

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LIST OF ABBREVIATIONS

SSA:	sub-Saharan Africa
GDP:	Gross Domestic Product
UNCTAD:	United Nations Conference on Trade and Development
OECD:	Organization for Economic Co-operation and Development
UNDP:	United Nations Development Programme
FFC:	Former French colonies
FBC:	Former British colonies
LAC:	Latin America countries
EUOFFSHT:	European offshoot states
GNI:	Gross National Income
PPP:	Purchasing Power Parity
HDI:	Human Development Index
IIAG:	Ibrahim Index of African Governance
WGI:	Worldwide Governance Indicators
NIE:	New Institutional Economics
ECOWAS:	Economic Community of West African States
GMM:	Generalized Method of Moment
BC:	Before Christ (or BCE: Before Christ Era)

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I hereby confirm that I have written the thesis I have submitted independently and without the use of sources and aids other than those stated and that I have labelled the passages taken from the sources used as such, either literally or in terms of content.

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19.02.2024

Ort Datum

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Unterschrift

1. INTRODUCTION

The discourse on the question of what really determines long-run development since the emergence of modern states has attracted the attention of many scholars (Renelt, 1991; Bluhm & Szirmai, 2012). The debate has led to the emergence of a body of theoretical and empirical literature that places institutions at the centre of the general development debate (North, 1990; , La Porta et al., 1997, 1998; Engerman & Sokoloff; 1997; 2002; Pomeranz, 2000; Acemoglu et al., 2001, 2002; Nunn, 2014). Against this background, I examine the current institutional performance of sub-Saharan Africa within the general context of this debate. I focus on the origins of contemporary institutions in the region by examining the historical roots of these institutions.

I begin with the main inquiry of this investigation by stating my research question. Does history play a role in the current performance of institutions in SSA? The study indicates that the imperative of European colonial revenue concerns during the colonial period has a strong explanatory power for current performance in SSA. In light of this observation, I set out to determine whether the colonial fiscal regime played a crucial role in the emergence of contemporary states in sub-Saharan Africa and, ultimately, in contemporary institutional outcomes.

To this end, I have created a novel and comprehensive dataset of 30 former colonies of the former imperial powers – Britain and France – by collecting fiscal information. The dataset is unique in that it covers not only colonial tax revenues, but also public goods expenditures of the two largest European imperial powers in SSA. I used primary sources from the colonial Blue Books of the British colonies and the digital archives of the financial documents (*Budget et Comptes des Révenus et Dépenses*) of the French colonies to aggregate the variables.

I adopted an empirical approach that builds on existing research (Acemoglu et al., 2001, 2002; Frankema & Waijenburg, 2014) to measure the extent of the impact of colonial tax revenues on SSA current institutional performance. However, my research differs from the latter studies from a temporal and regional aspect. Acemoglu and his colleagues compiled urbanisation and population data from countries colonized by Europeans regardless of their regional cultural heterogeneity and used this data as a measure of economic prosperity. They conclude that the fortunes of formerly prosperous countries over the past 500 years have been reversed: those that were prosperous around 1500 are now struggling.

Furthermore, Acemoglu's historical time frame differs from that of the present study. The author chose a period around the 16th century, whereas the temporal reference point of this thesis is the colonial period in SSA, which formally began at the very end of the 19th century after the Berlin Conference. My temporal reference point is therefore much closer to the present. By 1914, Africa had been effectively conquered (Vandervort, 2015), and the end of colonial rule was just six decades ago. Although I take a similar analytical approach to Acemoglu and his colleagues in relating history, i.e. the colonial period, to current institutional developments in SSA, my work is tailored exclusively to the sub-Saharan African region and thus avoids the authors' main criticism of compressing history (Austin, 2008).

This dissertation also differs empirically from the study by Frankema and Waijenburg. Although we both use tax data from former colonies, the authors do not establish a link between colonial variables and current performance variables in their study, although they conclude that colonisers' minimalist efforts in terms of public goods spending explain current development outcomes. This represents a clear spatial difference between our conceptual approaches. Moreover, they do not include colonial expenditure in their analysis. The only study that might be similar to mine is that of Huillery (2009) and Cogneau et al. (2021). However, these studies are limited to the French colonies in Africa.

This PhD thesis is divided into three main parts. The first segment focusses on the current economic, governance and development performance in SSA. It begins with section 2, which provides a stylized overview of current economic, governance and development performance in SSA. This gives us an insight into the current state of development in the region and forms the basis for examining the causes of the development gap in SSA. This is followed by Section 3, which provides an overview of the historical determinants of long-term development in the region and an understanding of the factors contributing to the region's current development problems.

Section 4 examines the basis for the main argument of this paper, namely the colonial history of the SSA, which this study argues has greater explanatory power for current institutional performance. It provides an overview of the historical background of European colonialism in SSA. However, in the final section of Part I, section 5, the colonial experiment of the former imperial powers in SSA, namely France and Britain, is examined in more detail. This gives us a clear picture of the different dynamics in the two imperial territories and their impact on postcolonial development.

The second part of this dissertation consists of three sections. It begins with section 6, which deals with the question of state formation in Europe, in precolonial Africa and in the colonial period. State formation in Europe illustrates the development of nation states in Europe, while precolonial state formation and colonial state development illustrate the patterns of precolonial and colonial social arrangements and the distortions caused by the colonial experience in relation to contemporary institutions in SSA. Considering that today's states are the legacy of European state founders, a clear view of European state-building allows us to evaluate the state-building efforts of colonial architects.

The following section of Part II outlines the analytical framework of this study. It examines the relationship between the origins of colonial state-building (fiscal policy) and contemporary institutional performance in SSA. The final section of Part II illustrates the lingering effects of the colonial legacy on African institutional performance. It sheds light on the mechanisms through which this persistence runs. The final two sections explain the context in which today's institutions, and thus today's performance, are related to the colonial past of the former British and French empires in SSA.

Part III consists of four sections. The first, section 9, deals with the creation of the French and British colonial dataset. It illustrates the data used to develop the empirical basis for the historical (colonial) context of current performance. Section 10 explains the source, methodology and aggregation of the French and British colonial data. The final sections of Part III deal with the empirical part of the study and my concluding remarks on this research as a whole. Section 11 presents the econometric regression and the resulting findings that show the relationship between the colonial period and contemporary performance, and section 12 presents the main takeaway from my research for the reader.

However, a potential limitation of this study is the size of the dataset due to the availability of financial data from the colonial period. Nonetheless, to my knowledge, this study provides a unique empirical perspective in the search for explanations of current poor institutional performance in the broader context of colonial historical development outcomes in sub-Saharan Africa. This study ends with a conclusion and an appendix that provides additional information.

Part I: Current performance, Determinants of Historical development, and colonial experiment in SSA

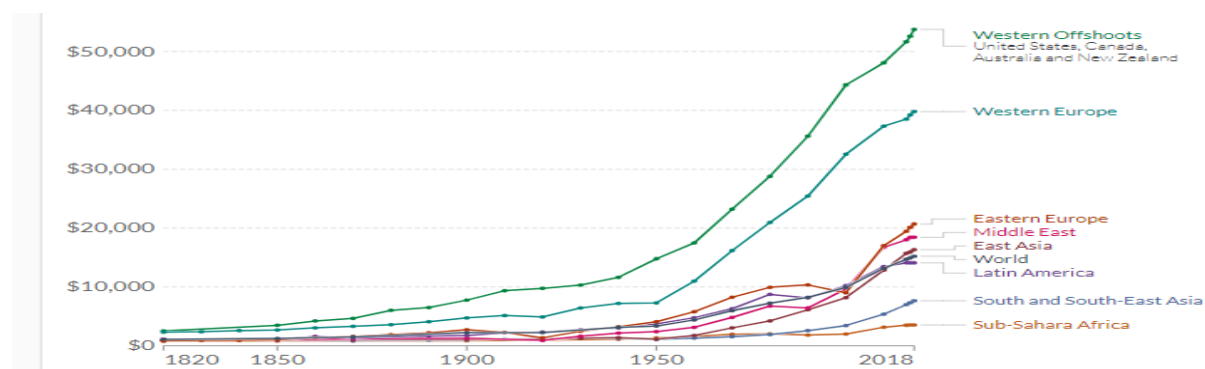
2. Overview of institutional performance economic growth, and development in Sub-Saharan Africa

The question of economic growth, institutional performance and development in SSA has been at the center of academic debates since the work of Sachs & Warner (1995) and North (1990). While the first series of studies highlighted the slow economic growth in sub-Saharan Africa between 1960 and 1990, the second study emphasized the role that institutions play in creating economic growth and development. Sachs and Warner's study led to the extension of the resource curse thesis, although the idea that natural resources are a hindrance or a blessing dates back to scholarly debates in 1950 and 1960 (Singer, 1950; Prebisch, 1950; Ginsburg, 1957; Rostow, 1960). Against this background, I examine a series of stylized figures to examine current performance in SSA.

2.1 Stylized Facts of Economic performance in SSA

Economic growth refers the increase in the total production of goods and services in an economy. It is usually measured by a nation's annual gross domestic product (GDP), although other measures may be used. Contemporary growth models (exogenous and endogenous) model economic growth as a function of physical capital, human capital, and technology (Bhattarai, 2004; Solow, 1956, 1957). Economic growth remains the most important measure of a country's prosperity, although there is criticism that growth does not always reflect the true level of society's standard of living (Piętak, 2014). The following chart shows the development of GDP per capita growth in different world regions.

Figure 1: GDP per capita across world regions between 1820-2018



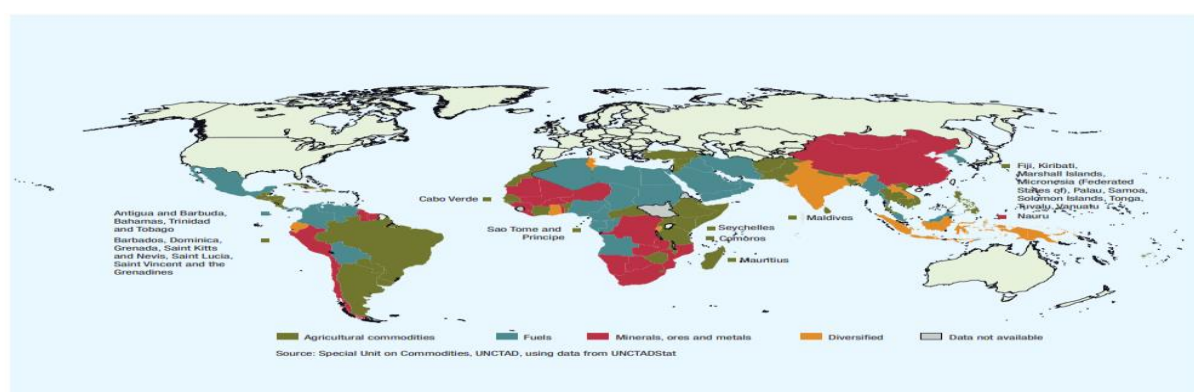
Source: Maddison Project Database 2020 (Bolt and van Zanden, 2020). This data is expressed in international-\$ at 2011 prices. <https://ourworldindata.org/extreme-history-methods>

As Figure 1 shows, the difference in per capita growth from 1820 to 2018 between sub-Saharan Africa and the rest of the world, particularly the advanced economies, is massive in absolute terms. Per capita GDP growth in Western Europe, the former colonizer of Africa, is ten times higher than per capita output levels in SSA, with the latter averaging \$3491 and the former \$39790, a difference of \$34910. This difference becomes even more pronounced when comparing Africa's GDP per capita with that of the European offshoot countries – United States, Canada, Australia, and New Zealand – which were themselves once colonies of Western states.

Per capita output in European offshoot countries is estimated at \$53756, fourteen times higher than per capita GDP in SSA, a difference of \$50265. The region also lags behind South and Southeast Asia in per capita growth, where GDP averages \$7649. Sub-Saharan Africa performs similarly poorly against Latin America, where GDP per capita is \$14076, and against East Asia and the Middle East, where per capita performance reaches \$16327 and \$18430, respectively.

In contrast to advanced economies, the economies of SSA countries are highly dependent on export of natural resources. According to Canuto (2021:231), "natural assets" account for 80 percent of total exports in Africa, and 50 percent of government revenues come from these exports. The large differences in GDP between SSA and the rest of the world can also be explained by this dependence, as Sachs and Warner argued in the mid-1990s. Economies with natural resources, especially minerals, are not only sensitive to a deterioration in the terms of trade, but are also very capital intensive. Due to lack of linkages, they therefore create fewer jobs, especially in countries with mineral resources (Auty, 2002:1-3). However, the dependence of developing countries on natural resources is best illustrated in Figure 2.

Figure 2: Dependence of developing countries on export goods by type, 2014-2015



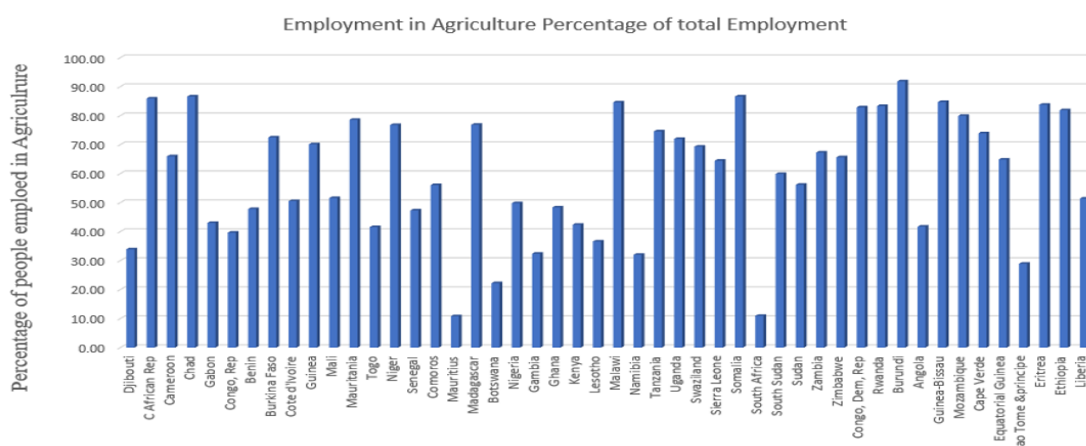
Source: UNCTAD data. See (Laurent, 2017). Note: The figures show the value of export goods as a proportion of total merchandise exports <https://unctad.org/system/files/official-document/suc2017d2.pdf> (See page 39).

The chart shows that most developing countries are dependent on commodity exports, with the vast majority in Latin America and SSA, where 80 to 90 percent of countries are dependent on

exports of either agricultural products, fuels, or minerals, ores, and metals. As the chart shows, very few countries in these regions have a diversified economy. Large parts of West Africa and almost all of southern Africa are highly dependent on mineral resources, while the eastern and island regions are more dependent on agricultural products. In the north of the continent and in part of the south, the export of petroleum (fuel) is of greater importance.

In SSA, 33 out of 48 countries have at least 50 percent of their population employed in the agricultural sector, further increasing the countries' dependence on commodity exports. This pattern is illustrated in figure 3. However, the historical trend of agricultural output as a share of total GDP is a decreasing function as countries accumulate more wealth (Roser, 2013). This contrast is best explained in developed countries, where less than 10 percent of total per capita production comes from agriculture, which is in stark contrast to developing countries, particularly in SSA, where the numbers range from 10 to 80 percent, as Figure 4 shows (see Roser, 2013).

Figure 3: Share of people employed in Agriculture as a percentage of total employment.

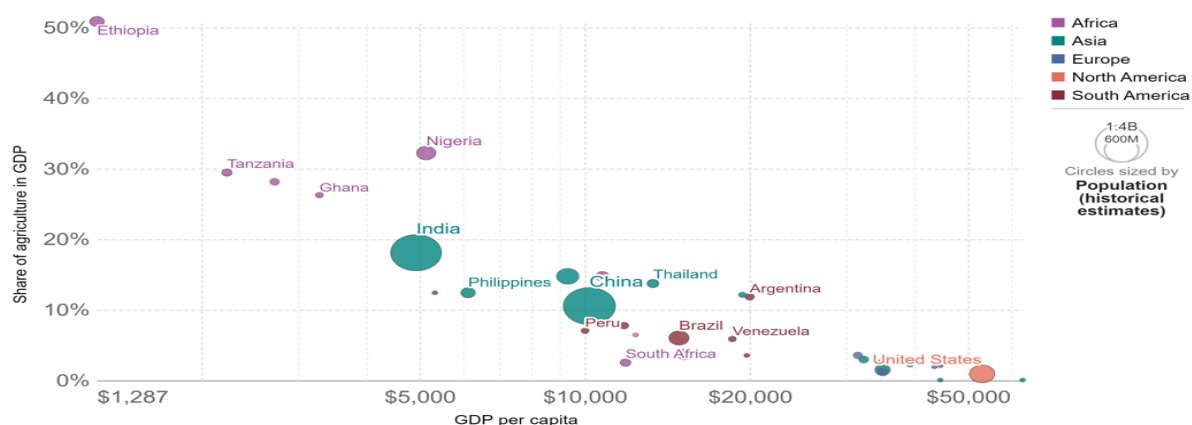


Source: Chart is based on the authors' work using the World Bank data.

<https://data.worldbank.org/indicator/SL.AGR.EMPL.ZS>

From 1839 to 2016, this figure fell from 42.6 percent to 0.9 percent in the United States, compared to Ethiopia, where agriculture accounted for 81 percent of GDP in 1961 and 50 percent in 2012 (Roser, 2013). In some countries, such as Botswana and Zambia, the share of agricultural income in GDP is low (3.3 percent and 10.5 percent, respectively, in 2010), but these countries are large exporters of mineral resources, which largely explains the low contribution of agriculture to GDP in these countries. However, to date, a significant share of GDP per capita in SSA is generated in agriculture, as illustrated in Figure 4 (see Roser, 2013).

Figure 4: Share of agriculture in GDP per capita, 2015



Source: World Bank national account data, and OECD National account data files. <https://bit.ly/3G9sGAd>

Note The author says that agriculture encompasses crops growing, forestry, animal production, hunting and fishing.

After a comparative analysis of the region's economic prospects in relation to other regions of the world, I examine various indicators of human development. To facilitate this examination, I have created a table based on data from the United Nations Development Programme (UNDP). The table covers eight regions, including selected SSA countries, Europe and its so-called offshoots (EUOFFSHT). The first category includes countries that were formerly colonies in SSA, while the second category includes the former colonial powers, namely France and Britain, along with their respective offshoots. I also make a clear distinction between SSA and North African countries as well as between former French colonies (FFC) and former British colonies (FBC). The remaining entries in the table represent Latin America (LAC) and Asia.

Table 1: Human development indicator in selected countries

Region	HDI 2019	Life Expectancy at Birth Year	Expected Year of Schooling	Mean Year of Schooling	GNI per Capita*
SSA	0.5	62	10	5	3590
Europe	0.9	82	17	12	46622
FBC	0.6	62	11	6	3875
FFC	0.5	62	9.0	4	3405
North Africa	0.7	75	14	7	11222
LAC	0.8	77	18	11	21190
ASIA	0.7	73	13	8	11399
EUOFFSHT	0.9	82	18	13	50309

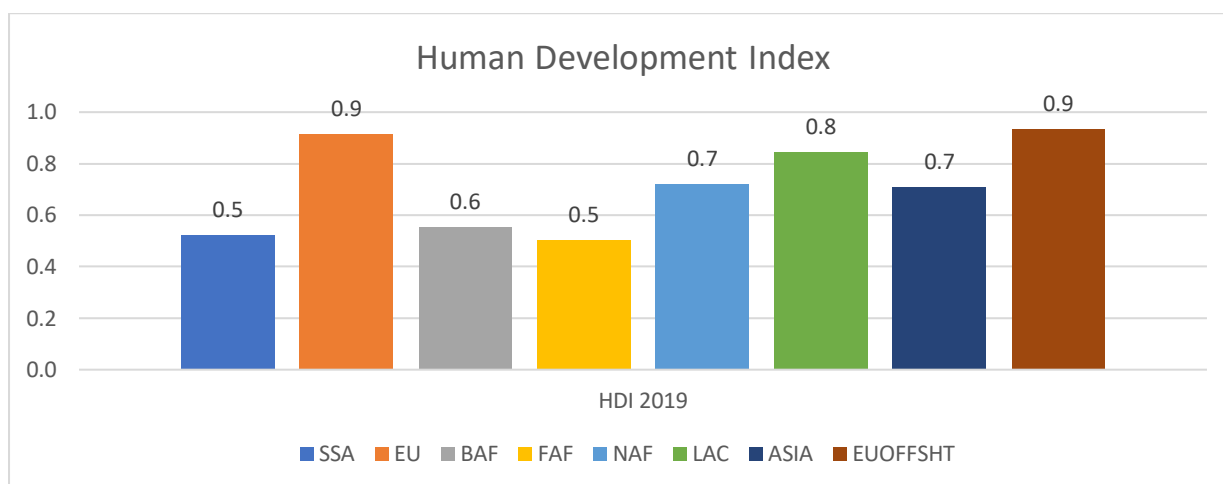
Source: Table based on the author's work using data from the Human Development Report of 2020, UNDP.

Note: * = Average value GNI per Capita value in US Dollar (PPP).

The Human Development Index (HDI) ranges from 0 (lowest value) to 1 (highest value). It is made up of life expectancy at birth, expected years of schooling, mean years of schooling, and gross national income (GNI), which are listed in the first row of Table 1. To obtain the data of

the table, I calculated the average value for each aggregated indicator. Although the mean year of schooling is the average year of education actually completed by a country's population, these values were already included in the UNDP data for each country. I have therefore calculated the average of the mean values for SSA, the former British colonies (FBC), and the former French colonies (FFC). However, in Figure 5, I present a graphical representation of the overall HDI as given in the second column of Table 1 to show a better overview of the variable.

Figure 5: Human development index Ranking in various regions of the world 2020



Source: Table based on the author's work using data from the Human Development Report of 2020, UNDP.

Figure 5 shows that SSA lags behind other regions of the world, including North Africa. The average HDI is 0.5 in SSA and 0.7 in North Africa. As shown in Table 1, the expected duration of schooling in SSA is about 10 years, while the actual completion of formal education is 5 years, which is also lower than in other parts of the world. In short, the data shows that SSA trails behind most regions of the world with regards to education, life expectancy, and income per capita. Furthermore, the data show that FBCs outperform FFCs in all areas of this analysis except life expectancy, where individual life expectancy is the same in each geographic area.

However, compared to selected neighboring countries in the Maghreb (Algeria, Morocco, Egypt, Libya and Tunisia), SSA lags behind in all aspects of human development. For example, the gross national income in the five selected North African countries is \$11399, three times higher than the \$3590 in SSA. In terms of education, school completion in North Africa and Asia is also higher than in SSA, with averages of 7, 8, and 5 years, respectively. In addition, SSA performs poorly compared to European offshoots and Latin America, whose gross national incomes are \$50309 and \$21190, respectively. Against this backdrop, I look at governance indicators, as institutions are supposed to promote economic growth.

2.2 Stylized Facts of Governance performance in SSA

Given the differences in economic performance between SSA and the rest of the world, especially in the advanced economies, the question arises as to what is really responsible for these huge differences in economic performance. What do the advanced economies have that SSA does not, or what do they do differently from sub-Saharan Africa? Khalil et al. (2007) explore this question and find that 80 percent of the differences in output levels between OECD countries can be explained by economic and legal institutions. They argue that economic freedom and strong property rights create a favourable environment for growth. This finding confirms the inadequacy of market economics in developing countries, which until 1990 focused mainly on the importance of relative prices, foreign trade reforms, the labour market, and taxation in explaining economic growth. This inadequacy also points to the institutional foundations of the market economy (Rodrik, 2000).

The concept of institution has been central to the discourse on economic development since the seminal work of Douglas North in the 1990s. North (1990) describes institutions as "the rules of the game," which in his view consist of formal and informal rules of behaviour. Institutions determine the incentives for people to engage in economic activity and contribute to society. They are an important factor for a functioning market as they reduce the uncertainty and costs of transactions caused by incomplete information about the behaviour of other actors.

Given the renewed interest in institutions as drivers of economic growth (World Bank, 1993; Aron, 2000), this subsection examines a number of indicators of institutional quality, in particular those published by the World Bank and the Mo Ibrahim Foundation. The latter has produced an Index of African Governance (IIAG). However, both organisations measure the level of institutional quality each year by assessing a number of indicators of good governance.

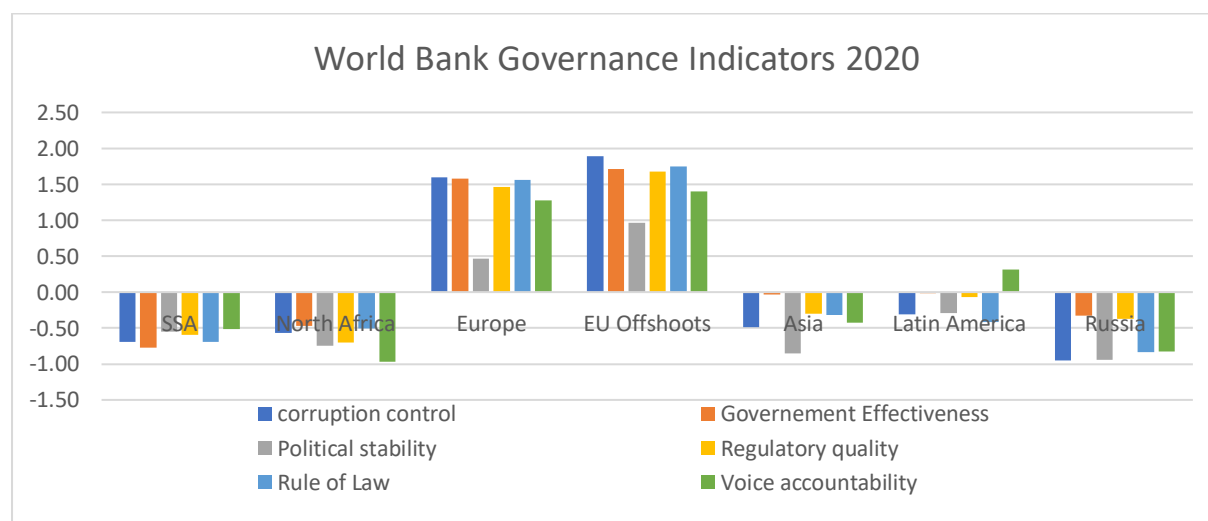
Kaufman et al. (2000) define governance as "the traditions and institutions that determine how authority is exercised in a particular country". They identified six dimensions of governance, namely voice accountability, political stability and absence of violence, government effectiveness, regulatory quality, rule of law, and control of corruption. Similarly, according to Mo Ibrahim's Foundation, governance is "the provision of political, social, economic, and environmental public goods and services that every citizen has the right to expect from their government and that a government has the responsibility to deliver to its citizens".

Voice Accountability assesses the degree to which citizens are able to engage in the process of electing their government representatives and how well they are able to freely express or

associate themselves. The political variable indicates the probability of a violent overthrow of the government. Government effectiveness, on the other hand, measures the quality of public and private services, including the extent to which officials are independent of political pressure, as well as the power of the government to devise and enforce policies and its credible commitment to those policies.

The quality of regulation evaluates the capacity of the government to formulate and enforce effective policies and regulations that foster the development of the private sector. The fifth indicator, rule of law, measures the degree of citizens trust the law and abide by the rules of the country, specifically the effectiveness of contract enforcement, trust in the police and court system, and perceptions of crime and violence. Finally, corruption control assesses the extent to which state authority is exercised for private gain, including small and large forms of corruption and the "capture" of the state by elites and private interest groups. The scale for each indicator ranges from +2.5 to -2.5, with a negative value indicating poor performance and a positive value indicating the opposite. The following figure shows the assessment of governance in different regions of the world.

Figure 6: Average governance indicators across the world regions, 1996-2020.



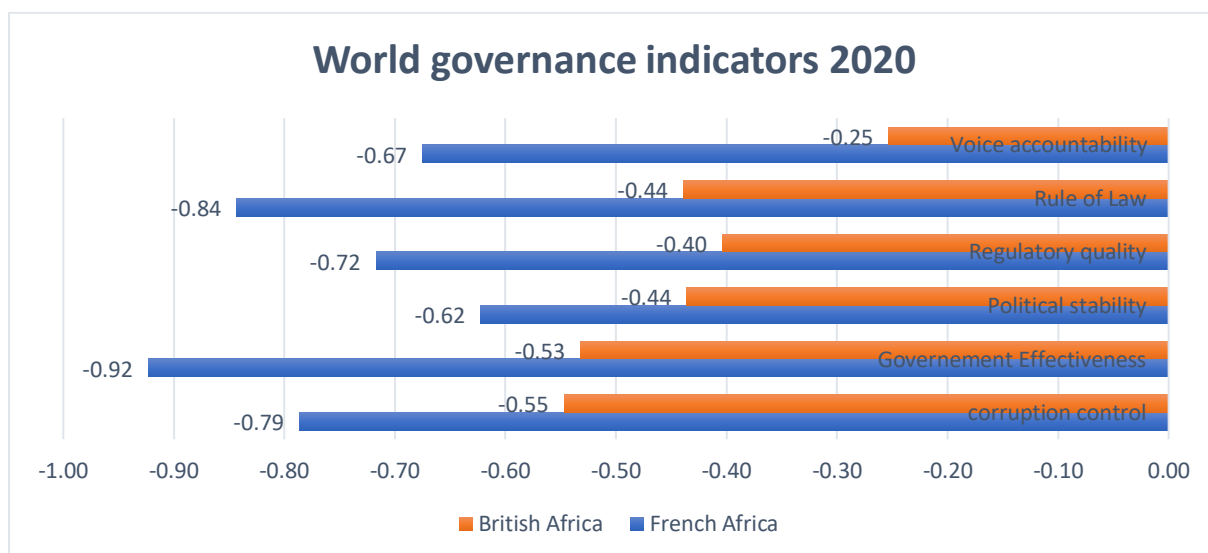
Source: The chart is based on the authors' work using World Bank governance data 1996-2020. I extracted data from the WGI, developed by Daniel Kaufman of the Brookings Institute and Aart Kraay of the World Bank. I calculated the average for each selected country, from which I derived the index for each region by taking the average of all countries that make up that region.

The chart shows a clear difference between SSA and Europe, including its offshoots, with the latter regions far ahead of the former in all areas of governance. Similarly, SSA lags behind Latin America and Asia in terms of governance, but performs better than Russia in all other

aspects of governance, except in the areas of government effectiveness and regulatory quality. SSA scores -0.77 and -0.60 points in these two areas respectively, compared to -0.33 and -0.37 points for Russia. However, compared to its continental neighbor, North Africa, SSA scores lower on three indicators, namely anti-corruption (-0.70 vs. -0.57), government effectiveness (-0.77 vs. -0.47) and rule of law (-0.69 vs. -0.50). On the other hand, it performs better than North Africa on three other indicators, namely the quality of regulation (-0.60 vs. -0.70), political stability (-0.55 vs. -0.74) and government accountability (-0.51 vs. -0.97).

However, Figure 7 illustrates the difference in governance scores between the former French and British colonies in SSA. The graph shows that in 2020, the former French-controlled territories still perform worse than the former British colonies in SSA in all aspects of governance. Of the six governance indices, the former French colonies perform significantly worse in government effectiveness and the rule of law, with an average score of -0.92 compared to -0.53 for the former British colonies, and -0.84 compared to -0.44 for the rule of law. The average score for voice accountability for Francophone Sub-Saharan Africa is -0.67, compared with -0.25 for Anglophone Sub-Saharan Africa.

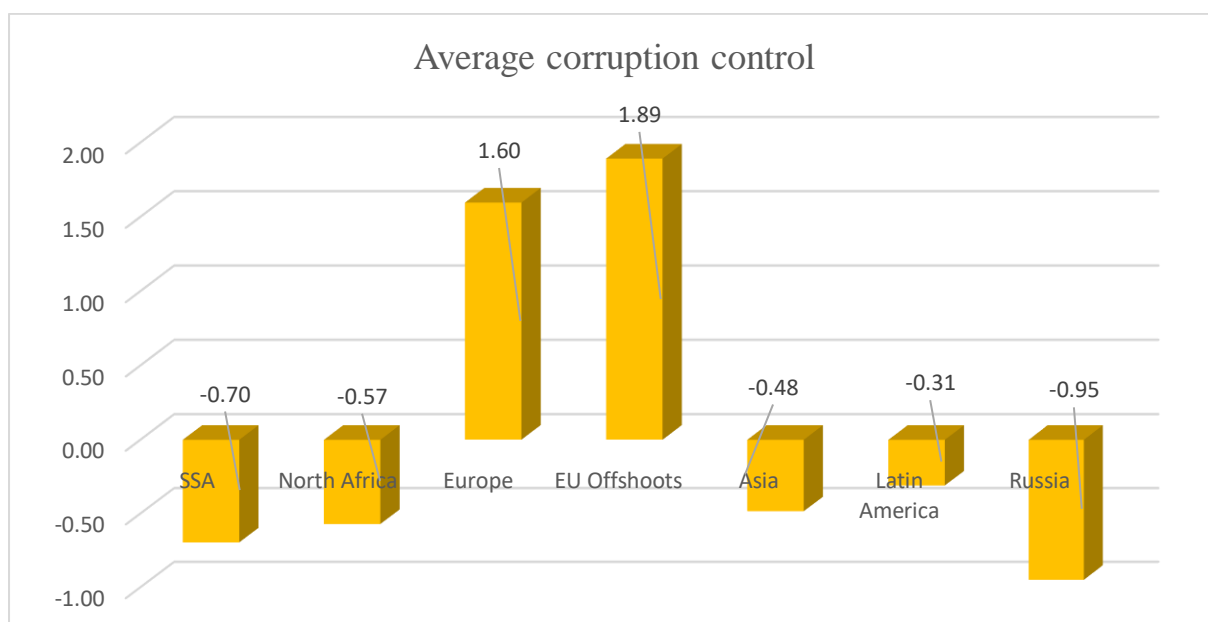
Figure 7: Comparison of average governance measures between former French and British colonies, 1966-2020.



Source: The chart is based on the authors' work using Worldwide Governance Index (WGI) covering 1996-2020, developed by Daniel Kaufman of the Brookings Institute and Aart Kraay of the World Bank. I calculated the average governance score for each former French and British colony and calculated the index for French and British Africa. Note: French Africa represents former French colonies in SSA and British Africa represents former British territories in SSA.

Nonetheless, one of the areas of governance that stands out when looking at Figures 6 and 7 is the control of corruption in all regions that struggle with good governance. Sub-Saharan African countries, including North Africa, Asia, and Latin America, have negative corruption scores, with SSA having the worst score at -0.70 points over the 1996-2020 period. SSA is followed by North Africa with -0.57 points, Asia with -0.48 points, and finally Latin America with -0.31 points. These statistics are in stark contrast to Europe and its offshoots, where the average corruption score is 1.60 and 1.89 points, respectively. This fact is shown by following figure below. It provides information on the performance of individual regions in terms of corruption perception.

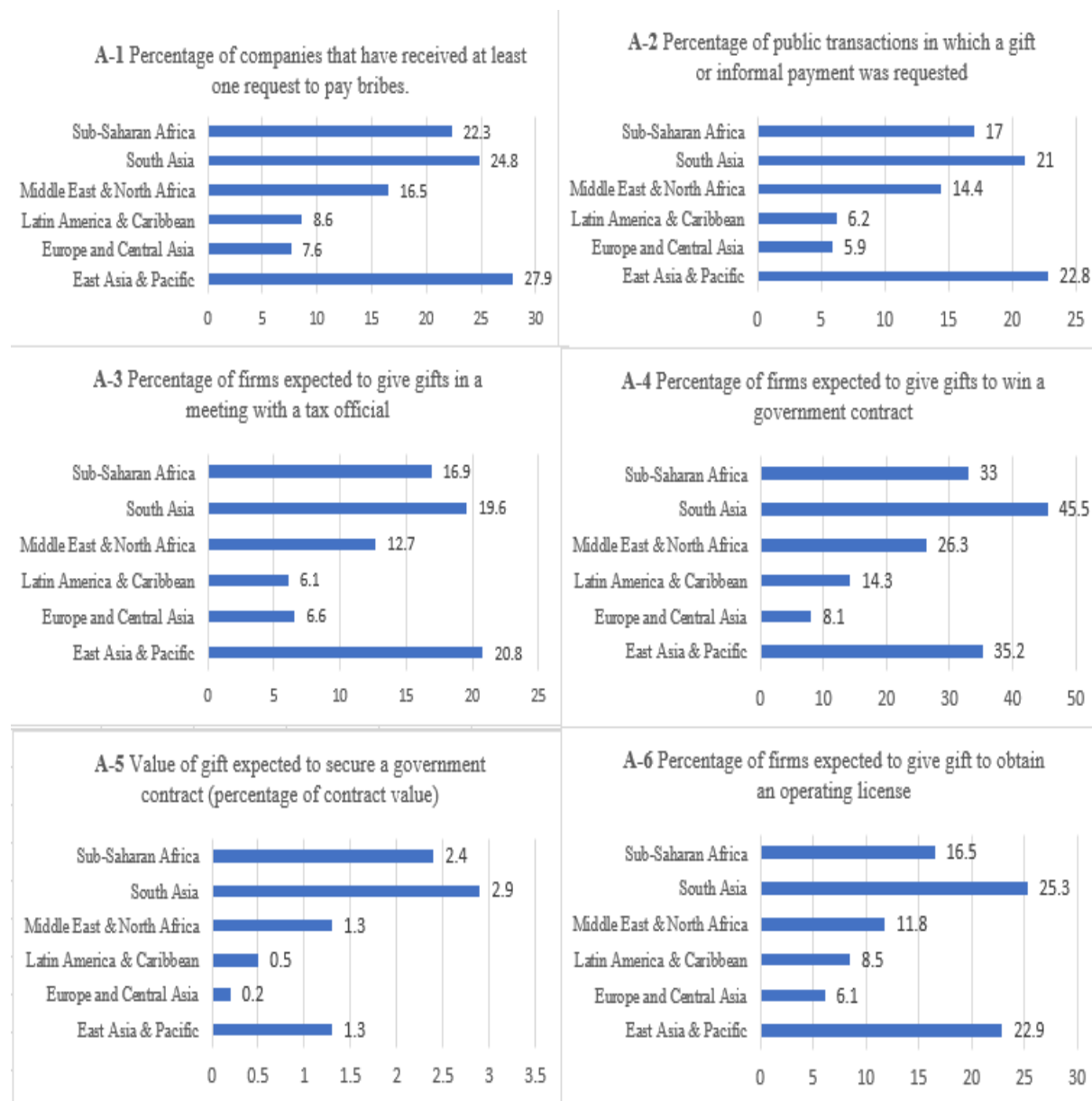
Figure 8: Average corruption control in world regions 1996-2020.



Source: The chart is based on the authors' work using World Bank governance data 1996-2020. I took data from the WGI developed by Daniel Kaufman of the Brookings Institute and Aart Kraay of the World Bank. I calculated the average governance score for each country and derived the index for the regions.

In a recent study for the period 2010-2020, the World Bank surveyed more than 161000 companies in 144 countries to determine the extent of bribery. The statistics give a very good insight into the extent to which bribery affects the likelihood of doing business in different countries around the world. Based on these statistics, I have created a chart that illustrates the extent of corruption in relation to companies' experience of paying bribes to obtain or close a deal. The following chart is a representation of this research. It consists of several, but different, graphical assessments of the impact of corruption on companies.

Figure 9: Statistics of companies in different regions of the world from which bribes were demanded.



Source: The chart is based on the authors' work using data from the World Bank Enterprise Survey for 2010 and 2020. Enterprise Surveys, The World Bank. <http://www.enterprisesurveys.org>

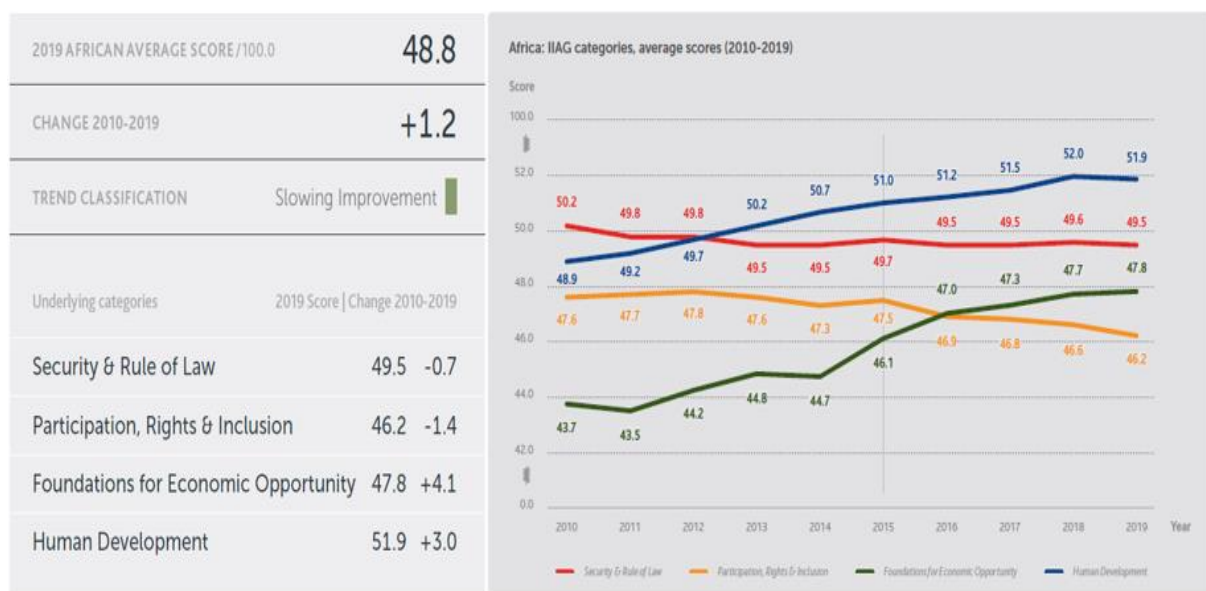
The chart shows the different types of bribes that companies face when doing business in different regions. The chart consists of six different graphs, each representing six types of bribes that a company pays to do business. The values in the graphs indicate the percentage of companies that confirmed that they paid or were solicited to pay a bribe before they could complete a transaction. Chart A-1 in Figure 9 shows the percentage of companies that received at least one request to pay a bribe. The data show that East Asia and the Pacific is the worst performing region, with 27.9 per cent of businesses confirming a request for a bribe. This is

followed by South Asia and SSA, where 24.8 and 22.3 percent of companies respectively confirmed a request for a bribe.

Remarkably, sub-Saharan Africa appears to perform better than East Asia and the Pacific, including South Asia, in all the individual charts in figure 9. The data shows that SSA ranks third in terms of the percentage of companies from which bribes were demanded. However, the SSA region's worst performance compared to other regions is shown in Chart A-4, where 33 percent of companies report having paid bribes to win a government contract. However, only 2.4 percent of companies' state that they were asked to give a percentage of the contract value as a gift in order to win a government contract.

Like the World Bank, the Ibrahim Index of African Governance (IIAG) provides a customized analysis of governance in sub-Saharan African countries. The IIAG was developed in 2007 by the Mo Ibrahim Foundation to exclusively assess the extent of governance in Africa. It assesses a number of dimensions of governance, particularly in the areas of security, justice, law, health, environment, and the foundation for economic opportunity. The following figures show the IIAG's assessment of governance in Africa.

Figure 10: Comprehensive governance performance in Africa, 2010-2019



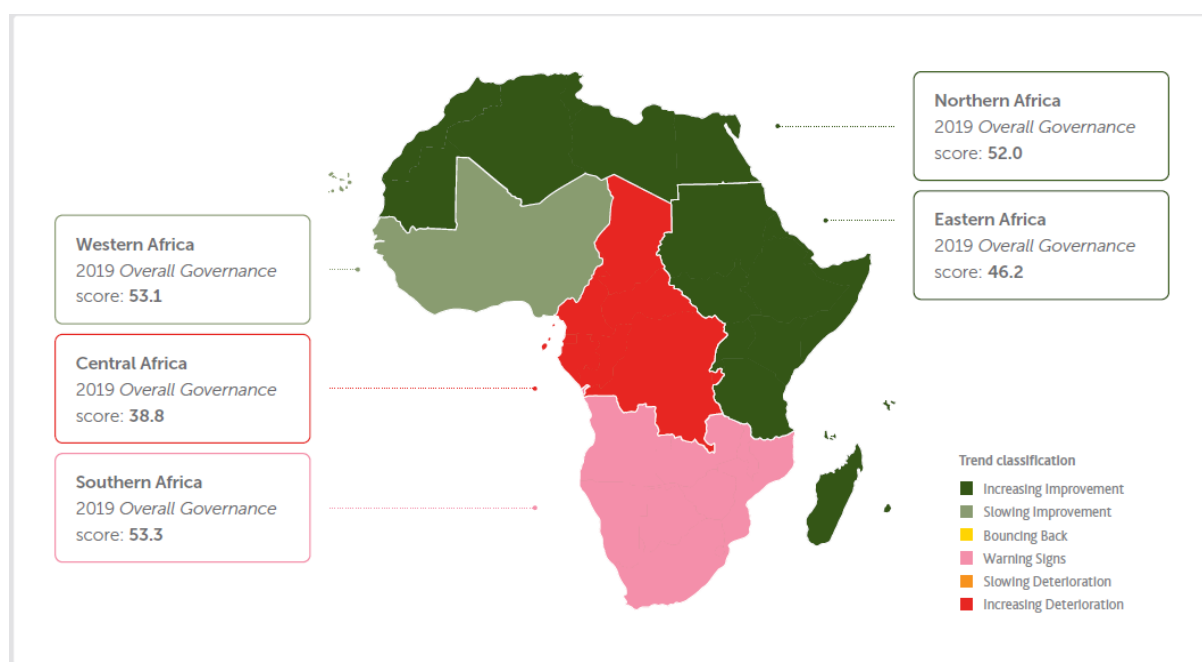
Source: 2020 Ibrahim Index of African Governance – Index Report.

<https://mo.ibrahim.foundation/sites/default/files/2020-11/2020-index-report.pdf>

Figure 10 shows that overall governance in Africa improved by 1.2 points. Despite this improvement, the continent's overall governance performance remains below 50 points out of a total of 100. According to the IIAG assessment, the trend of improvement appears to be

slowing. The data show improvement in the area of economic opportunity, with an increase of 4.1 points, and in the area of human development, where performance is 51.9 points, an increase of 3 points. However, the continent continues to perform poorly in the areas of security and rule of law, and participation, rights and inclusion. The data show a decline in performance of -0.7 points in security and rule of law and -1.4 points in participation, rights and inclusion. The corresponding scores are 49.5 and 46.2 points. But which part of Africa scores well and which does not? The following chart gives a clear indication of this pattern.

Figure 11: Comparative governance performance within SSA region in 2019.



Source: 2020 Ibrahim Index of African Governance – Index Report.

<https://mo.ibrahim.foundation/sites/default/files/2020-11/2020-index-report.pdf>

A look at Figure 11 shows that Central Africa, with an overall governance score of 38.8 points, performs the worst of all regions in SSA. It is closely followed by the Eastern countries, which score 46.2 points. The two best performing regions are West Africa with a score of 53.1 and Southern Africa with a score of 53.3. But despite these figures, the statistics point to a slow improvement in the former region and a warning sign in the latter. The pacesetter in terms of improvement, however, is North Africa, which has improved rapidly according to the statistics. However, the corresponding value of 52.0 points lags behind that of the neighbouring countries in the west and south of the continent. After looking at economic performance and governance, the next sub-section looks at development indicators to assess the continent's overall level of development.

2.3 Stylized Facts of World Development Indicators performance in SSA

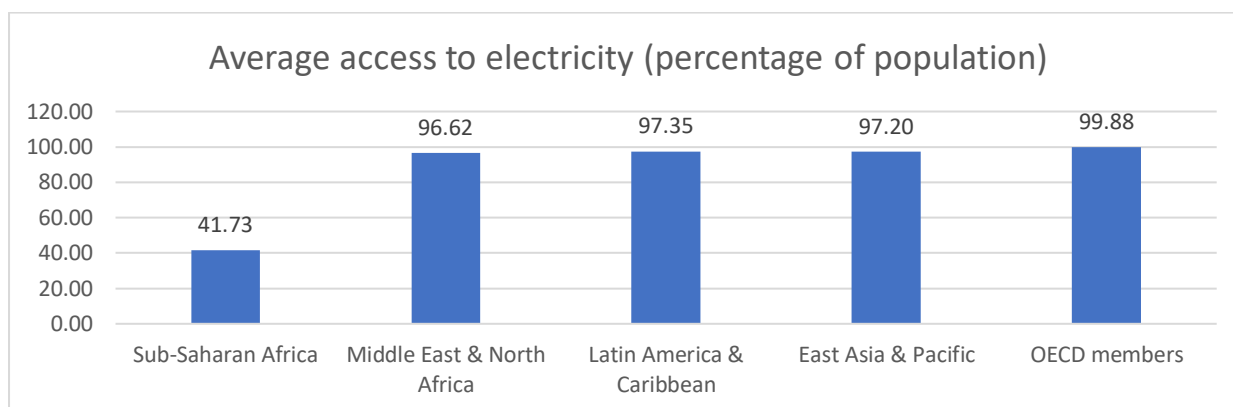
The concept of development is complex and difficult to define because it means different things to different people. Throughout history, the term has been associated with many things, from economics, politics, education, inequality, health, human rights, legal system, etc. So, what is development? The traditional answer to this question refers to the economic meaning of the term, which states that "achieving sustainable rates of per capita income growth enables a nation to increase its output faster than its population grows" (Todaro & Smith, 2012:14).

Professor Dudley Seers also answers the question of what development actually is as follows: "The questions to ask about a country's development are therefore: What has been happening to poverty? What has been happening to unemployment? What has been happening to inequality? If all three of these have declined from high levels then beyond doubt this has been a period of development for the country concerned. If one or two of these central problems have been growing worse, especially if all three have, it would be strange to call the result "development," even if per capita income doubled" (Seers, 1969:5).

Similarly, Amartya Sen, one of the best-known thinkers on the question of development, argues that development cannot be based on economic considerations alone. For Sen, "economic growth cannot usefully be treated as an end in itself. Rather, development must be about improving the lives we lead and the freedoms we enjoy" (Sen, 1999/2014:14; also cited in Todaro & Smith, 2012:16). He argues that the "Capability to function" determines what development is and suggests that this is the factor that really matters to everyone, poor or not. Sen believes that the level of income is not necessarily the right measure of poverty and that it is not what someone possesses or feels that determines their well-being, but what they are or can be and what they do or can do. For Sen, it is a matter of what benefit someone derives or can derive from a good that is important for his or her well-being.

Given these different approaches, one basic fact remains. That is, economic growth is important for development. Whether it is a tool for achieving sustainable prosperity and alleviating poverty or a prerequisite for prosperity is not the subject of this subsection; rather, it is a matter of looking at some of the stylized facts to assess the state of development in sub-Saharan Africa and globally. Most of the charts are based on my work using data from various sources to measure and compare differences in development performance in SSA and to assess performance against world regions. The following charts therefore look at different aspects of development in different regions of the world beginning with access to electricity.

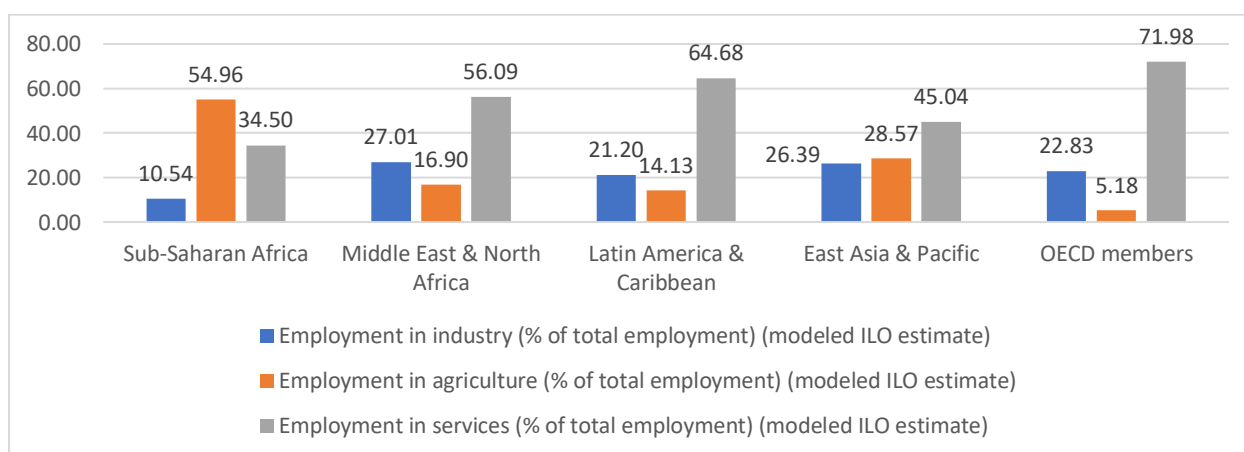
Figure 12: Comparative average access to electricity around the world.



Source: Based on the author's work using World Bank data 2011-2020.

Figure 12 shows the average access to electricity in different regions of the world. The data shows that only 43 percent of sub-Saharan Africa population has access to electricity, a figure significantly lower than other regions of the world. In contrast, in the OECD regions, almost every citizen, 99.88 percent to be exact, has access to electricity. All other regions in the figure, including Sub-Saharan Africa's neighbour North Africa, have an impressive average electricity access rate of 96 percent. The next figure shows the average employment situation in the world in various economic sectors.

Figure 13: Comparative average employment in different sector of the economy in the world 2011-2020

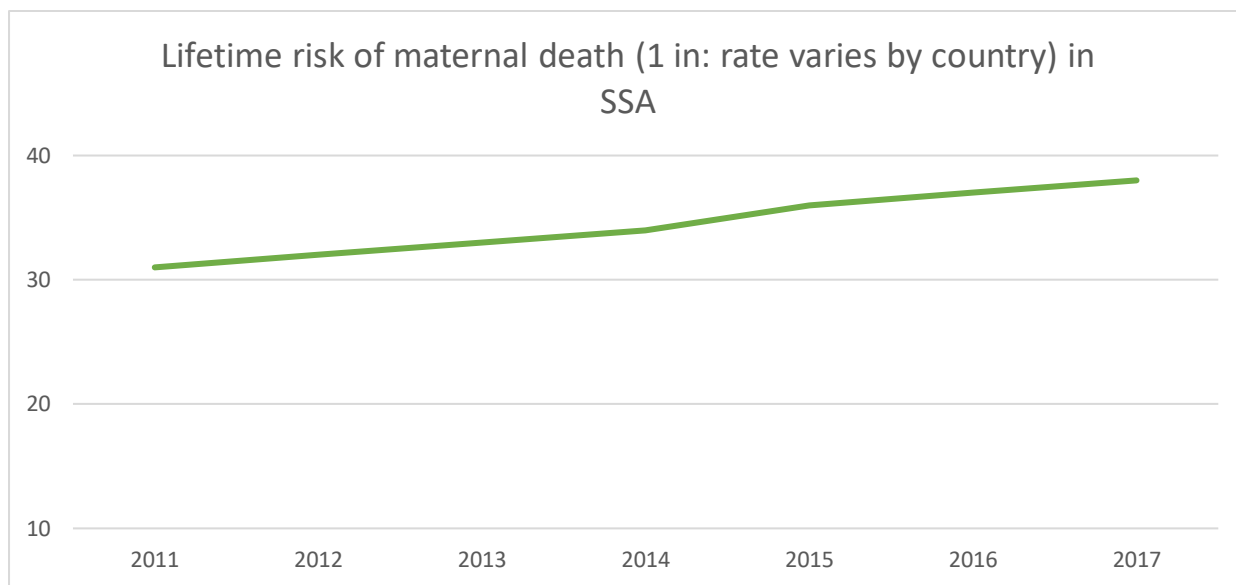


Source: Based on the author's work using World Bank data 2011-2020.

Figure 13 illustrates the distribution of employment between the agriculture, industry and services sectors in different regions of the world. Compared to the Middle East and North Africa, where 27 percent of the workforce is employed in the industrial sector and 16 and 56

percent in agriculture and services, respectively, only 10.54 percent of the population in sub-Saharan Africa is employed in the industrial sector. Approximately 55 percent are employed in agriculture and 34.50 percent in the service sector. This underlines the lag in the continent's economic development compared to the rest of the world. However, another aspect of the development challenges in SSA is illustrated by the following figure.

Figure 14: Average trend of lifetime risk of maternal death by country in the world.



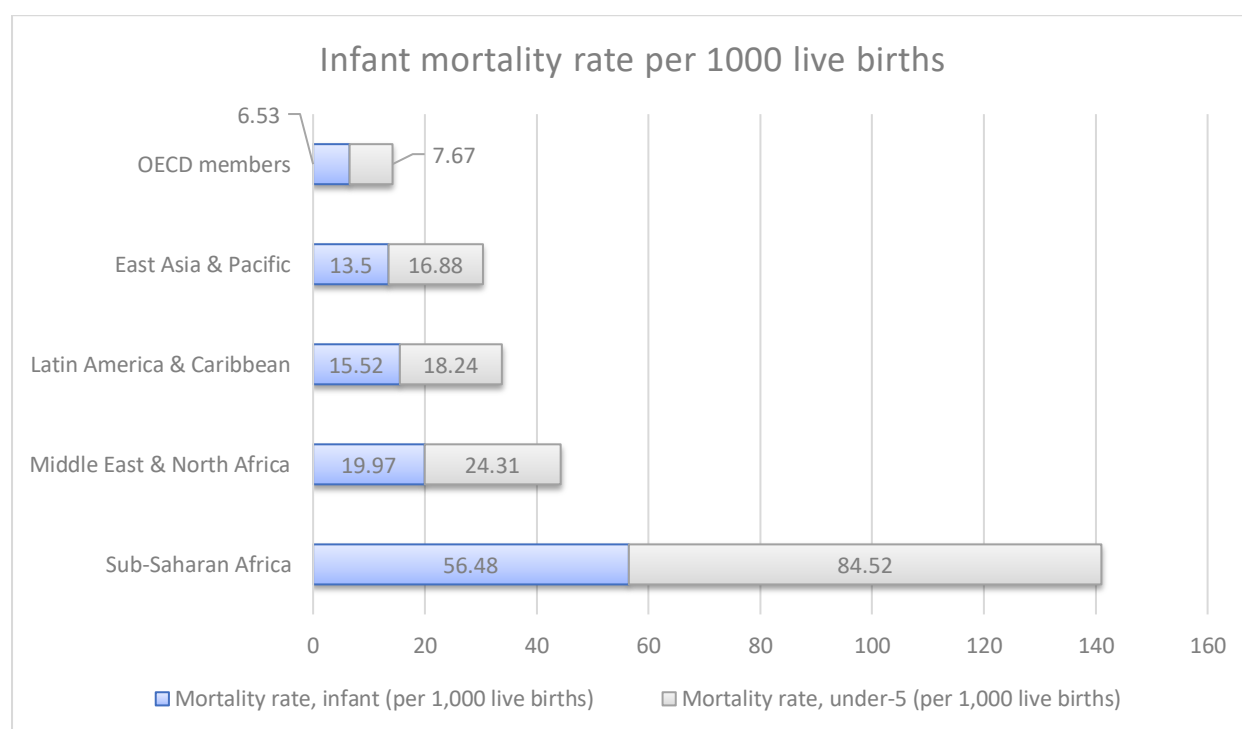
Source: Based on the author's work using World Bank data 2011-2020.

Lifetime maternal and infant mortality is an important indicator of a country's economic progress and development. These factors pose a significant public health problem, especially in developing countries (Girum & Wasie, 2017; Kammerlander & Schulze, 2023). Using survey data from 46 developing countries, Kammerlander & Schulze find that infant mortality in families tends to decline when economic conditions improve, illustrating the link between neonatal mortality and economic growth. Similarly, Girum and Wasie find that maternal mortality rates vary widely across African countries. In countries such as Chad, Niger, the Democratic Republic of Congo, Nigeria, Mauritania, Senegal, Liberia, Benin and Guinea, maternal mortality rates range from 27 percent to 44 percent. (Okonji et al., 2023).

Despite considerable efforts in recent decades to tackle this problem and a global decline in maternal mortality, the maternal mortality rate in sub-Saharan Africa remains alarmingly high. This is also underlined by the increased lifetime risk of maternal mortality in the region since 2011, as Figure 14 shows. According to the World Health Organisation in February 2023, 1 in 49 women in low-income countries is at risk of dying in childbirth by the age of 15. This is in

stark contrast to 1 in 5300 women in high-income countries (WHO, February 2023). Furthermore, of the 253000 maternal deaths reported globally in 2020, the Sahel alone accounted for 202000, with South Asia and sub-Saharan Africa contributing significantly to this figure. Like maternal mortality risk, infant mortality at birth in SSA, as Figure 15 shows, is shockingly high by global standards, both in terms of mortality rate per 1000 and under-5 mortality rate per 1000 live births.

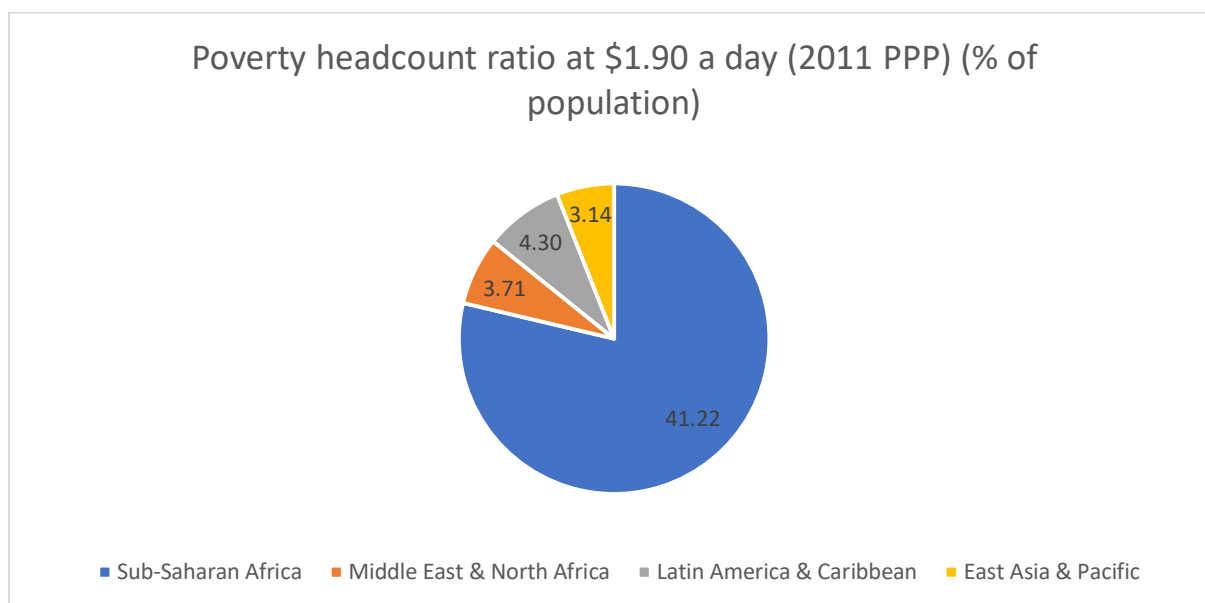
Figure 15: Average mortality rate per 1000 live births around the world



Source: Based on the author's work using World Bank data 2011-2020.

A further review of the descriptive data presented in subsection 2.3 confirms that SSA lags behind other global regions in terms of development prospects. The data shows that few people in SSA have access to electricity. It shows the limitations of the modern sector as the majority of the labour force is employed in agriculture compared to the rest of the world. The statistics also shows that the average lifetime risk of maternal death has increased since 2011. As Figure 14 shows, on average there is one maternal death for every 40 births. Similarly, the infant mortality rate in SSA is 56 deaths per 1000 live births compared to 6 deaths per 1000 live births in OECD countries. A particularly worrying indicator, however, is the poverty rate in SSA. Figure 16 shows that 41.22 percent of the population live on less than \$1.90 a day, compared to 3.14 percent in East Asia and the Pacific, 4.30 percent in Latin America and 3.71 percent in the Middle East.

Figure 16: Average poverty headcount ratio around the world.



Source: Based on the author's work using World Bank data 2011-2020.

The examination of economic growth, institutional performance and development in SSA presented in this subsection reveals a multi-layered web of challenges and perspectives. While much of the academic literature emphasizes the slow economic growth in the region, my assessment highlights the complex interplay between natural resources, institutional structures and development outcomes. Clearly, SSA continues to struggle with significant disparities in economic performance compared to other regions, particularly advanced economies. The heavy reliance on natural resource exports has not triggered the expected economic transformation, but seems to have trapped the region in a pattern of economic vulnerability. The predominance of agriculture in the labor force coupled with inadequate access to modern amenities such as electricity further hinder diversification efforts.

Equally revealing is the performance of institutions in the region. Despite the emphasis on institutions as "rules of the game", essential to economic growth, SSA lags noticeably in governance metrics. From voice accountability to anti-corruption control, the challenges in SSA are vast and varied. This is not to say that progress is not being made or has been made in areas such as economic opportunity and human development, as highlighted by the IIAG, but the overarching record is one of improvement that has yet to reach global benchmarks.

Moreover, comprehensive development indicators show a bleak picture that highlights the daunting tasks ahead. High maternal and infant mortality rates, a significant proportion of the population living in extreme poverty, and a limited modern sector highlight the development

hurdles facing the region. However, to understand the current development prospects in SSA, one must also consider its historical antecedents. The enduring imprints of the colonial legacy, particularly in terms of institutional structures and governance, cannot be ignored. As highlighted in this subsection, the differences in governance performance between the former British and French colonies underscore the depth of the historical determinants.

In nutshell, while SSA's development journey, is fraught with challenges, it is also a testament to its resilience. An integrated approach that focuses on diversifying economies, strengthening institutions, and prioritizing holistic development is essential to charting a new course. Only by addressing the myriad challenges head-on and harnessing its enormous potentials can SSA hope to rewrite its story in the annals of global economic history. In light of the assessment made in this subsection, I will first review the traditional rationales proposed in the literature, starting with the historical determinants of long-term development.

3. The historical determinant of the long-run development in former Sub-Saharan Africa colonies: Geography, Institution, and colonization

Scholars and practitioners generally recognize that the economic growth and institutional performance of countries in SSA lag behind those of Western and Asian regions. However, these challenges are not inexplicable. Three themes of social science research dominate the landscape of available explanations: Geography, institutions, and history/colonization. Are geography, institutions and colonization relevant to development? Recent studies in the historical development literature show that all of the above themes have an impact on contemporary development through the historical channel. I examine each of these themes to determine the extent of their influence on development, particularly in the African context.

3.1 The geography conditioned development hypothesis

Does geography play a role in development? What is meant by this question is whether geographic factors contribute to or hinder long-term development. The studies that address this question can be easily divided into two categories: First, there are studies that analyze the current direct effect of geography (Krugman, 1991, 1992 2011; Fujita & Krugman, 2004), and second, there are studies that emphasize the historically persistent effect of geography on current performance (Diamond, 1997; Nunn, 2014).

The link between geography and economics has a long history (Ricci, 1999; Rauch, 1991). It goes back to the idea of comparative advantage by Ricardo (1817/2001) and to the theory of the "isolated state" by Von Thünen (1826/2022). Also Weber (1909) deals with the location

question, as does the study of Henderson (1974), who developed an urban system model. However, contemporary studies since the seminal work of Krugman (1991) have led to the emergence of the New Economic Geography, which goes beyond the traditional analysis of location. The focus of this subsection, however, is on the impact of geography through its continuing historical influence on development, the relevance of which was also recognized in Krugman's (1991) New Economic Geography.

The broad significance and long-term effects of geography on development and economic growth have gained prominence in the development history literature in recent decades (Nunn, 2014). One of the most important contributions to the debate on the enduring historical influence of geography on development is Jarred Diamond's seminal 1997 work highlighting the crucial role of geography in economic development in Europe and in the European colonization of the rest of the world. There are two reasons for Diamond's argument: the initial endowment of wild plants and domesticable animals and the east-west orientation of Europe.

First, the early domestication of a variety of wild plants and animals facilitated the transition from a hunter-gatherer society to a more productive agricultural economy with the help of technological innovations. According to the theory, Europeans developed a high level of tolerance to animal diseases during domestication, which was as crucial to the colonial conquest of the Americas as the military campaign. The natives were almost wiped out by European diseases, which largely explains the far-reaching effects of geography.

Second, Europe's east-west location enabled the domestication of plants and mammals, which allowed technology to spread more quickly and easily in Europe than in Africa and the Americas. One of the advantages of the east-west location is the uniform day length and a stable climate. Day length is a crucial factor in crop production, as it affects the behavior of plants in terms of the timing of flowering and fruiting. An east-west crop orientation reduces weed growth and increases crop yield. A north-south orientation, on the other hand, varies day length and the climate is usually different. According to Diamond, the early advantage in Eurasia has not spread as quickly to Africa and the Americas because of these geographic conditions.

Sachs (2001) also makes a similar observation, claiming that temperate countries have higher levels of development and economic growth than tropical countries. He identifies 5 possible reasons for the differences in development. Consistent with Diamond (1997), Sachs' original hypothesis assumes that technology in critical areas such as health, agriculture, energy infrastructure, and manufacturing processes has not readily transitioned from temperate to tropical zones.

However, Nunn (2014) calls Diamond's domestication argument too intuitive and argues that the taming of animals and plants is potentially endogenous and that the counterfactual of some of the examples Diamond gave is simply unobservable. For example, he argues that certain unobserved factors may have prevented the domestication of the zebra in the South and therefore cannot be compared to the domestication of the horse in Europe because its wild ancestor cannot be observed.

In his second hypothesis, Sachs claims that critical technology in the early years of economic growth (mid-1800s) was more productive in the temperate zones than in the tropical zone. Sachs further contends that the size and wealth of the population in the temperate zones favored technological innovation, which he believes ensured that technology was more profitable in Europe. Engerman and Sokoloff (1997) also attribute the path differential in the New World to these early advantages. They argue that the United States and Canada were able to exploit these advantages relative to other countries on the continent.

Consistent with Bairoch (1988), Sachs's third argument indicates that social dynamics (e.g., urbanization, demographic change) and geopolitical factors (e.g., military and technological superiority of temperate zones) are among the exacerbating causes of the widening gap between the two zones in economic and developmental terms. An earlier study by Bloom and Sachs also suggests that geography is a significant disadvantage and barrier to economic growth and development in Africa (Bloom & Sachs, 1998). They argue that Africa's low agricultural productivity, particularly in the production food, increased disease rate, and limited international trade are due to the continent's climatic conditions, soil quality, typography, and disease environment. Similarly, (Acemoglu et al., 2001) point to the disease environment as the factor that prevented the spread of property rights institutions in Africa during the colonial period.

According to Acemoglu and Co. the extractive institutions that were introduced as a result of the disease environment persist to this day, and is the reason that prevents current development and economic growth in the least developed countries (see North, 1990 for more on the impact of institutions on economic growth and development). Acemoglu's comment somewhat downplays the larger influence of geography and is consistent with some previous studies as well as current evidence (Bloch & Anderson, 2015, first published in 1966; Lewis, 2009, first published in 1978; White & White, 1964; Sachs, 2001; Andersen et al, 2016). These studies agree that technological innovations have helped mitigate the larger impacts of geography.

Arthur Lewis, Marc Bloch, and Lynn White, for example, agree that the advent of the heavy plow, the domestication of plants and animals, and the technology of crop rotation wiped out the early advantage of tropical over temperate zones. This is consistent with the study by (Sachs, 2001) and Andersen et al (2016). Based on Diamond's 1997 research, Sachs describes the historically greater influence of geography, which he believes has partially given temperate countries an economic advantage and continues to hinder development in tropical zones, particularly SSA.

Empirically, Andersen et al. (2016) applied the heavy plow thesis to the data, drawing on the work of Whyte¹ to examine the sources of temporal variation in heavy plow adoption and cross-sectional variation in regional readiness to adopt the technology across 268 regions. The results show that the adoption of the heavy plow explains 10 percent of the increase in population density and urbanization from middle age. This is consistent with the characterization of (Bairoch, 1988) and de Vries (1976) that only places with high agricultural productivity and highly developed transport infrastructure can accommodate high population density and hence economic growth.

A similar empirical effort by Olson & Hibbs (2005) examines the historical long-term effects of geographic conditions on development. The result of their work indicates that geographic and biogeographic conditions contributed greatly to the transition from hunter-gatherer modes of production to sedentary agriculture and consequently to modern industrial production. Using extensive cross-sectional data, they find that geographic and biogeographic conditions have a strong influence on contemporary economic performance.

In line with Diamond's hypothesis, Olson and Hibs also argue that the early availability – going back to prehistory – of plants and domesticable animals gave temperate countries a head start. According to them this advantage potentially explain why Europe was able to colonize the rest of the world. They argue that economic productivity favored the emergence of early civilization in areas with unequal endowments. The results contrast with the disease hypothesis of Acemoglu and others, which runs through the institutional channel (Acemoglu et al., 2001). However, Rodrik and colleagues (2004) examine this contradiction and conclude that the effects of geography on economic performance do indeed run through institutional channels. Easterly and Levine (2003) also reach a similar conclusion.

¹ Whyte (1964) argues that before the invention and widespread adoption of the heavy plow, the exploitation of the argillaceous soils in Northern Europe would have not been possible.

Ashraf & Michalopoulos (2011) demonstrate that “12000 years ago” climate played a crucial role in technological change and population density. This may have forced societies towards adopting an early form of agricultural production. They test their theory using cross-national data and archeological sites on the emergence of agriculture. The result suggests a non-monotonic influence of geography on the timing of the transition from hunter-gatherer societies to agriculture. This U-shaped relationship between the initial conditions of these societies and the timing of the transition to agriculture may have accelerated the early adoption of agriculture at these sites and prevented its early spread to areas with dissimilar climatic conditions.

In the same mold, Michalopoulos (2012) examines the impact of geography in the context of ethnic diversity, captured by the variability of regional soil quality and elevation across regions and countries. The result shows that geography is a strong determinant of ethnic diversity. Accordingly, places with greater variability in soil quality and elevation have higher concentrations of linguistic ethnic diversity, which explains the clustering of different ethnic groups in these places. This result is also consistent with Nettle (1998), who shows that countries with low rainfall and short growing seasons have lower ethnic diversity.

Harmon (1996) reached an identical conclusion in a similar study, relating regionally specific vertebrates and flowering plants to linguistic heterogeneity (see also Skutnabb-Kangas and Harmon, 2017). Moore et al. (2002) examine the strong similarity between vertebrate species and cultural diversity in Africa in a quantitative study. Their study shows that environmental factors are responsible for 71 percent of species diversity and 36 percent of linguistic heterogeneity. Sutherland (2003) also concludes that habitats with a high diversity of birds and mammals are associated with high linguistic richness.

It has long been known that ethnic diversity can lead to conflict, depending on the context. A more polarized ethnic composition is usually associated with the occurrence of civil wars and less economic success than a fractionalized society (Montalvo & Reynal-Querol, 2005). However, Ager & Brueckner (2013) find that cultural fractionalization increases growth, while cultural polarization decreases economic performance. Montalvo and Reynal-Querol (2021) also find a positive impact of diversity on growth in Africa. In contrast, Arbatlı et al. (2020) reach a different conclusion and show that interpersonal diversity favors the occurrence, prevalence, frequency, and intensity of intra-societal conflict, see also (Ashraf & Klemp, 2018).

In the same empirical context of geographic effect, Durante (2009) examined the influence of weather on social outcomes in Europe and found that weather variability has historically influenced levels of cooperation and social trust among locals in Europe. He finds that trust

levels are higher in regions with greater spatial variation in precipitation and that social trust is related to weather patterns during the growing season. However, Durante concludes that the effect of weather on social trust runs through the historical channel and not due to current climate variability. According to him, people in pre-industrial Europe developed norms of trust through collective action and mutual assurances to cope with a common climatic condition that threatened the prevailing economic system. According to his account, these norms persisted well beyond the time when the climate effect was no longer significant.

Social trust has a long history with social development, economic growth, and the functioning of a democratic society. For example, Bjørnskov (2012) finds that social trust leads to economic growth through its effects on schooling and the rule of law; (see Flanagan et al., 2010 for the effects of the relationship between social trust and schooling). In a similar study, Dearmon & Grier (2009) examine the relationship between trust and economic development. Consistent with previous findings, the authors find that trust increases the level of physical capital through significant interactions with human capital.

A recent study by Alsan (2015) also examines the impact of geography in Africa and highlights some of the effects of geography on development. Alsan's study is consistent with the disease theory of Acemoglu and his colleagues. According to the authors' theory, the high mortality rate of European settlers prevented the introduction of institutions that promoted growth in Africa. Alsan examines the disease hypothesis in the context of the historical presence of the tsetse fly. She sought to determine whether the tsetse fly prevented high agricultural productivity in Africa as well as the introduction of animal and plant domestication and the use of mammalian-based technologies.

The tsetse fly is an insect, more precisely a mosquito, from the Glossina family that lives in tropical Africa and dates back to prehistoric times (Lambrecht, 1964). The tsetse fly feeds on the blood of livestock and transmits a disease called trypanosomiasis, commonly known as sleeping sickness. The insect also feeds on human blood and therefore transmits the disease to humans. The theory is that the presence of the tsetse fly may have prevented the introduction and spread of early agricultural technologies related to the use of domesticated animals and could be an explanation for the low population density in Africa.

Alsan constructed a model in which the factors of production are animals (capital), land, and labor (human). Since the disease affects livestock first and then humans, this explains the shift in agricultural production from a more capital-intensive one with the use of animal-assisted technology to a more labor-oriented one as a result of the increased tsetse presence. The natural

consequence is the decline in agricultural productivity and the limitation of technological development in the affected areas. Alsan also notes that the tsetse presence affects current economic growth through its initial impact on precolonial institutions. She argues that the tsetse presence prevented indigenous people from taking advantage of the early benefits of mammal-based technology and the use of the heavy plow, so they were more likely to opt for subsistence agriculture and the slave trade.

Nunn (2014) takes up the temporal and spatial question of the historical persistence of the geography effect by reviewing a large body of literature. Nunn asks whether geography has a constant effect throughout history or whether it is discontinuous across time and space. Based on his literature review, he concludes that geography has a different impact at different times and places in history. He points out that its influence is tied to specific historical contexts. He argues that the disease environment, on which Acemoglu et al.'s (2001) hypothesis is based, only mattered at the time of colonization because it was critical to Europeans' decision not to settle in Africa in large numbers and thus to the introduction of institutions other than property rights.

In the same vein, the studies of Hydén (1980) and Nyerere (1977) highlight the “villagization” programs of locals between 1973 and 1975 in Tanzania as a result of drought, which may potentially explain current regional variations. Similarly, Fenske & Kala (2013) link the increasing slave trade between the 18th and 19th centuries to climate and support their hypothesis by pointing out that colder weather exacerbated the slave trade, as opposed to warmer temperatures, which they argue were associated with higher mortality rates (Burgess et al., 2011). In general, there is an empirical link between the slave trade and the current economic development malaise in SSA. For more details on this topic, (see Nunn, 2008).

In contrast to the negative temporal and spatial effects of geography across the historical channel, Nunn & Puga (2012) find a statistically significant relationship between a location with rugged terrain and high-income levels in contemporary Africa. Although rugged terrain hinders economic development because of the high investment required, Nunn and Puga argue that it was a boon when it came to the impact of the slave trade. Places with rugged land were less affected by the slave economy because residents used the geographic disadvantage to defend themselves against slave raiders.

As I have argued in this subsection, the effect of geography is ambiguous due to mitigating factors such as technology. Geography, however, is not the only reason cited in the development literature for Africa's plight. Institutional weakness and the effects of colonization are also cited

as reasons for the continent's sluggish development. Since the seminal work of North (1990), institutions have occupied an important place in explaining sub-Saharan Africa's weak economic growth. In the following subsection, I will discuss in detail what institutions are, and also the impact of institutions on economic growth and their implications in the African context.

3.2 The institution-induced development hypothesis

A free and peaceful life in a society requires the cooperation of the individual actors. To protect society from anarchy and disorder, people need rules that structure their interactions and prevent individual or group behavior from tearing apart the social fabric of the nation. This need to protect individual and collective freedoms has led to what I will later refer to as institutions. Institutions are generally a set of social constructs that serve to guide, regulate and control the interactions of people in society.

The study of institutions goes back to some of the earliest theories of the state developed by thinkers such as Jean Bodin (June 1530 - June 1596) and Thomas Hobbes (April 1588 - December 1679). However, to understand the concept, it is important to look at early institutional theories through to contemporary theories. The main concern of the early institutionalists was stability and order in the face of the "state of nature". Hobbes, for example, argues for the creation of state institutions headed by a sovereign (the king) endowed with absolute power to control the behavior of all actors through laws and established mechanisms that uphold the natural law established by the citizens. Furthermore, Hobbes warns against religious interference in the affairs of a government led by the king and rejects any rebellion against the authority of the sovereign once he has been empowered by the people.

The flip side of Hobbes' solutions to anarchy and disorder, however, is that his theory intentionally or unintentionally encourages the autocratic behavior of the ruler. Although Hobbes' theory led to some economic growth due to the relative peace it brought about, critics argue that it contributes to the restriction of ingenuity and competition due to the absolute concentration of power in the hands of the king (Levi & Menaldo, 2015). Other arguments state that Hobbes' conception of institutions contributes to an increase in authoritarian leadership and is therefore detrimental to the individual freedom of the masses.

A century after the emergence of Hobbes' theory, a series of insightful studies by John Locke (August 1632 - October 1704), Baron de Montesquieu (January 1689 - February 1755), and Jean-Jacques Rousseau (June 1712 - July 1778) marked a paradigm shift from the "Leviathan" approach presented a hundred years earlier. Nevertheless, the aforementioned authors show

some similarities with their Hobbesian predecessors in that they reaffirm the problem of the "state of nature" and the need for a social contract to which Bodin and Hobbes had referred. However, they unanimously rejected the absolutist idea that gave the king total power and thus the resulting government. These Enlightenment thinkers extended the concept of institutions beyond the ideas of Hobbes and Bodin and proposed a more liberal and egalitarian solution to the "state of nature".

Following the Enlightenment theorists, the advocacy of a more just and prosperous society was taken up by classical economic theorists. In contrast to the enlightenment theorists, who were more concerned with the political aspect of institutions, which they believed would enable peace and stability and thus economic well-being, classical authors such as Adam Smith and David Hume focused their analysis on the self-interest of the individual within reasonable limits, which they believed would lead to the economic well-being of society.

Before Hume and Smith, however, the concept of the "economic man" can probably be attributed to some extent to Mandeville's satirical poem *The Grumbling Hive in the Fable of the Bees: or, Private Vices Public Benefits*. Although Mandeville did not explicitly formulate the concept of homo economicus, decades before the pioneers of the idea, he argued that the key to economic prosperity lay in the transformation of private vices into public virtues. In his view, selfishness should be encouraged and corruption tolerated in order to achieve economic growth. He believes that the virtuous tendency of people leads to a smaller economy and a boring society (Ryan, 2012).

Hume and Smith, on the other hand, assumed that the free market, the division of labor and appropriate government policies would lead to economic growth. They promoted private interests by advocating the protection of property rights and less government intervention, which Adam Smith saw as an obstacle to efficient markets (Smith, 1793/2002, 1759/2010). In contrast to Mandeville, Smith believes that self-interest combined with the right institutional framework will influence people's behavior towards a more productive society.

However, building on the classical idea, a variety of economic and institutional theories developed, from which the neoclassical theory emerged. The main assumptions of the neoclassical approach are based on the idea of "homo economicus" or "economic man". It assumes that individuals have perfect information and make rational decisions to maximize their utility based on preferences and other external constraints. Essentially, the theory focuses on individual actions rather than the collective and assumes that everyone has the same information about market conditions. It assumes that actors have structured preferences that do

not change and that individuals will always choose a utility-maximizing strategy because they are rational human beings.

However, the neoclassical view of institutions as drivers of homo economicus is not explicit and has therefore been criticized for its myopic emphasis on efficiency (Bates, 1995). However, this does not mean that the theory is devoid of normative aspects, as it builds on Smith's classical concept that clearly recognizes the importance of norms and values as factors that influence behavior (Evensky, 2005). In his theory of moral sentiments, Smith placed emphasis on human behavior and norms. Similar to classical theory, institutions were not the focus of neoclassical theory, which is why it is often accused of functioning in an "institutional vacuum" (Katterle, 1991).

Nevertheless, the introduction of economic externalities into the strict neoclassical model led to a considerable refinement of the model by Arthur Pigou in 1923 and later by Ronald Coase (Zimbauer, 2001). Given the inadequacy of market mechanisms in dealing with externalities – the impact of individual behavior on the utility of others – Pigou proposes the intervention of formal institutions through corrective measures such as taxes, price regulation, transfer of property rights, etc, to compensate for the shortfall. In contrast, Coase proposes private negotiation as a solution to externalities instead of the institutional argument developed by Pigou. However, Coase does not rule out the role of institutions as an enforcement mechanism for these private agreements.

However, the resurgence of the theme of collective action is partly responsible for the spread of neoclassical theories in social science theorizing, especially in political philosophy. Thomas Hobbes addressed the "state of nature" centuries earlier, arguing that "when two men desire the same thing but which they cannot both enjoy, they become enemies" (Hobbes, 2010/1651: ch. 13). Hume put forward a similar idea in his *Treatise on Human Nature*, albeit in a different context. He explains collective action using the example of two neighbors who agree to drain a meadow that they jointly own.

However, one of the most remarkable assessments of collective action in modern times was made by Mancur Olson in his 1965 book "The Logic of the Collective Action". He argues that individual rationality does not necessarily lead to group rationality due to conflicts of interest. However, the problem of market failure, characterized by externalities, combined with the question of public goods and their corollary – collective action – led to the emergence of several theories, notably the new institutional economics of 1980. This meant a departure from the narrow classical and neoclassical view of institutions. But what is an institution? I explore this

question in the following subsection. I deal with the definition of institutions, their types and their significance for development.

3.2.1 Definition of institutions

In the social science literature, institutions are cited as an important determinant of economic growth and development. Since the emergence of New Institutionalism theory, the concept of institutions has become a popular argument for explaining the causes of development and underdevelopment, especially in SSA. The central argument put forward in the New Institutional Economics (NIE) literature since the seminal work of Douglas North in 1981 is that the absence of good and efficient institutions encourages predatory behavior and consequently reduces economic growth (Bates, 1981, 2014). Such assumptions sharpen the focus on what institutions are and why they are so important for development.

However, there is no universal definition of institutions per se, as the term is used differently by different authors. Douglas North defines institutions as "the humanly devised constraints that structure political, economic and social interactions". (North, 1991:97). For North, institutions are the "rules of the game" that determine how the game is played (North, 1990:3). North's conception of institutions arguably forms the cornerstone for many definitions currently offered in the social science literature and other disciplines.

Some of these definitions describe institutions as equilibria or families of games (Hodgson, 2006; Hurwicz, 1996). Others define them as regularities in the behavior of individuals (Hayek, 1978/2021/) or as collective intentions manifested through social practices (Tuomela, 2002). However, one of the following three key terms, namely RULE, NORM, CONVENTION, appears at least in almost all definitions of institution. I therefore address this definitional heterogeneity of the concept by explaining the distinction between a) institutions as rules, b) institutions as norms and c) institutions as conventions.

a) Institutions as rules

The description of institutions as a set of rules can be associated to several 20th century authors such as Max Weber and Talcott Parsons (Hodgson, 2006; Lawson, 1997). However, the study of institutions as determinants of economic development and prosperity really took off after Douglas North's seminal work titled: *Structure and Change in Economic History*. The origins of the rules-based approach to institutions, however, can be traced to the work of (Hohfeld, 1913) and Commons (1968) and later to contemporary authors such as (Shepsle and Weingast,

1984; North, 1986; Shepsle, 1989; North, 1990; Ostrom, 1990; Williamson, 2007; and Knight, 1992).

The Cambridge dictionary defines rules as "accepted principles or instructions that specify how things are to be done or should be done, and that tell you what you may or may not do."² In a strictly formal term, we can define rules (institutions) simply as the dos and don'ts agreed upon by a group of players (people) in a game (interaction) that can be enforced either by the approval or disapproval of the collective or by an established sanctioning mechanism and authorities.

Hodgson (2006:3) defines rules in the broadest sense as a "socially transmitted and customary normative injunction or imminently normative disposition that in circumstances X do Y." Hodgson explains that the transmissibility of rules (replication) in society depends on social culture and the use of language developed over time. He argues that rules consist of behavioral norms and social conventions as well as legal rules, and goes on to say that all of these rules have the potential to be codified.

In contrast, Hayek (1978/2021) conceptualizes rules in terms of a "regularity of individual behavior" that presupposes a changing basis of inherited biology – "instinctive drives" – as well as reason and social interactions. However, Kley (1994) believes that the latter description stretches the definitional limits of the concept. Tuomela (1995) further distinguishes between rules and norms. According to him, rules require explicit consent and involve sanctions from an external authority, while norms, in his view, involve consent and disapproval. Sugden (2000), on the other hand, explains both concepts in terms of preferences alone.

However, a number of authors have argued that rule-following is not exclusively deliberative, i.e., intentional, as previously coined by others (Searle, 1995, 2005; Lawson, 2005). For example, Searle (2005) distinguishes between observer-dependent and independent phenomena that emanate from human attitudes (institutions). Polanski (2002/1967) also expresses the concept of tacit knowledge, which also makes it difficult to reject the instinctive or autonomous feature of rule-following. He affirms the view that the intentionality of the concept goes beyond its deliberative property.

b) Institution as Norms

There is no uniform or specifically accepted definition of norms, in part due to conceptual heterogeneity among authors. Ragnar Rommetveit, following his 1955 empirical study³,

² <https://dictionary.cambridge.org/dictionary/english/rule>

³ Rommetveit, R. (1955).

suggests that the use of the term manifests itself in three ways: as an indication of uniform behavior, as a designation of a certain common "frame of reference," and as an expression of the existence of social obligation and pressure." (quoted in Gibs 1965).

In a review of the definition of norms, Gibs finds only two points that agree with Rommtveit's characterization. He argues that a norm must have three features: "a collective evaluation of behavior in terms of what it ought to be; a collective expectation as to what behavior will be; and particular reactions to behavior, including attempt to apply sanctions or induce a particular kind of conduct". Although Gibs acknowledges that there are no specific evaluation criteria for the characteristics he lists, he distinguishes nineteen types of norms.

The first attribute proposed by Gibs describes the notion of a shared understanding of what a person should or should not do. Basically, it is about how someone should behave in their social relationships. The author's second attribute refers to the predictive behavior of others, that is, the type of behavior we expect from a person in a social situation. The last attribute described by Gibs gives the concept a legal substance similar to law. Gibs agrees with Weber that the response to behavior must be through the appropriate "staff of people" (Weber, 1954).

c) Institution as a Convention

The term convention can literally mean several things, depending on the context. It can refer to the way things are done. Basically, it means an agreement on the way things are done or should be done between or by different entities. An agreement on certain things, an agreement on methods, practices, processes, rules or customs, or a deliberative assembly or meeting of certain entities. However, there is often disagreement among scholars as to how the term should be understood.

North (1990) classifies conventions as an element of informal institutions. Economic conventionalists, on the other hand, distinguish between institutions and conventions. They regard the two concepts as two separate phenomena (Salais & Thévenot 1986; Storper and Salais 1997; Favereau & Lazega 2002). Salais argues that "in economic and social coordination, conventions precede institutions" Salais (2011:218). He emphasizes that one does not need a bunch of rules and laws to figure out what to do at a particular moment in your work, or what to do at all.

For Salais and the proponents of the theory of economic convention, the concept not only encompasses the features of mutual expectation, but according to them it is historically embedded in the "social objects" (institutions) and acts on them as a stabilizing force. The

economic convention argument formulated by Salais states that an established system of conventions has a greater stabilizing and efficient effect on social coordination than institutions. Salais argues that before people enter into interaction (social coordination), people build up a form of practical experience over time that serves as a reference point for coordination actions. This reference point becomes the conventional basis/way of people's acts of coordination, and therefore conventions precede institutions. However, Hodgson argues that institutions must be mediated by conventions in order to be effective.

Hodgson defines convention "as a particular form of institutional rule" and argues that some conventions may in some cases appear as coordination equilibria (Hodgson, 2006). For example, conformity of language use to a particular norm (Quine, 1960). Similarly, (Sugden, 2004:33) describes the concept as "any stable equilibrium in a game that has two or more stable equilibria". Lewis (1969/2008) deviates somewhat from Hodgson in his definition. He does not assume that everyone wants to follow the convention. For Lewis, a coordination game is a stable equilibrium – a convention – if i) everyone follows a regular behavior R; ii) there is a mutual expectation to follow R; iii) each player prefers to follow R only if others do, because R is a coordination equilibrium (p.58).

3.2.2 Type and Importance of institutions

According to Douglas North, "the humanly devised constraints that structure social interactions" consist of formal and informal institutions. For North, formal institutions consist of rules, constitutions, laws, policies, regulations, rights and property rights. According to North, informal institutions include norms, conventions, customs, taboos, codes of conduct, etc. (North, 1990, 1991). At first glance, however, North seems to distinguish between organizations and institutions. He refers to the latter as "rules of the game" and the former as "players."

For many, North was somewhat unclear in his distinction between the two terms, which earned him some criticism (Hodgson, 2006). According to Hodgson, although North was abstract in his characterization, he clarified his position on this issue in letters to his professional colleagues in 2002. North makes it clear in his correspondence that he treats organizations as "players" only for the purpose of analyzing the socioeconomic system as a whole. Despite criticism of him, North's general assertion is supported by many (Hindess, 1989; Coleman, 1982). Like James Coleman, Barry Hindess argues that organizations can be regarded as social actors. However, Hodgson believes that such a characterization conflates individual agency and organization.

Since the advent of the NIE, the role of institutions in conditioning favorable outcomes in social life has been reemphasized (North, 1990; Acemoglu et al. 2001, 2002; Acemoglu & Robinson, 2012). Their importance is emphasized in all areas of social life: Business, finance, education, politics, justice and so on. Wherever social exchange takes place, institutions have been shown to structure the way in which these interactions should take place. Darren Acemoglu and James Robinson argue in their widely acclaimed 2012 book that "nations fail when they have extractive economic institutions supported by political institutions that hinder or even block economic growth" (p. 55).

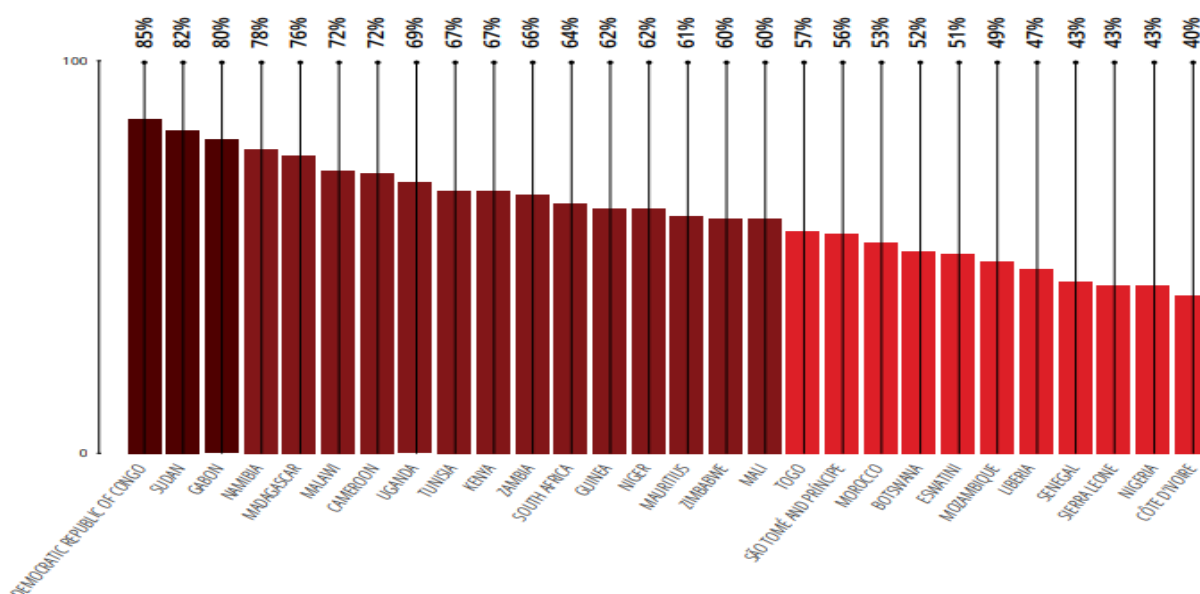
But why are institutions so important that nations fail if they do not have good institutions? According to North (1990, 1991, 2018), institutions help shape human behavior and social outcomes. Consequently, they structure the incentives that arise from people's political, social and economic exchanges. Institutions shape the way society develops and therefore explain historical change. Institutions not only affect economic performance (North & Thomas, 1973), but also explain the different economic outcomes throughout a society's history. Acemoglu & Robinson (2012) reinforce this view by claiming that countries are economically successful because of differences in institutions. They explain the difference between poor and rich countries. In their view, inclusive economic institutions, such as those that exist in developed countries, lead to economic growth.

North further argues that institutions reduce uncertainty and serve as a guide for human interactions by structuring the course of action that social actors should or must take in certain situations. For example, what we must do when we want to buy a car, when we receive a subpoena, or how we vote in an election, etc... basically, what we can and cannot do within the formal or informal constraints that society imposes on us. Since exchanges between rational actors are not free from externalities and information asymmetries, transaction costs are an important determinant of social exchange. High transaction costs hinder market efficiency (Coase, 1960). For this reason, institutions play an important role in resolving market failures. They become important when transactions are costly, as Coase (1937) famously noted. Therefore, institutions (political or economic) that reduce transaction costs create the conditions that promote economic growth (North, 1992). Transaction costs include all costs incurred in the operation of an economy.

In more recent literature, however, the concept has been extended beyond the economic spectrum and applied more generally to the study of political systems. This aspect of institutions was explored in a study by North (1990), in which he investigated transaction costs in the

political market and the influence of ideology on political decisions. However, one of the most important aspects of institutions is their role in reducing corruption, which is seen by many as an obstacle to development in many developing countries, particularly in SSA (Reno, 1995; Asongu, 2013), and in promoting economic growth (Acemoglu & Robinson, 2012, North, 2003). The figure below shows how people perceive government corruption in their respective countries in 2019.

Figure 17: Percentage of people who perceive a rise in corruption in the last 12 months.



Source: Transparency International's Global Corruption Barometer Africa 2019 looks at citizens' views and experiences of corruption.. https://images.transparencycdn.org/images/2019_GCB_Africa3.pdf

According to a 2019 publication by Transparency International, "Where are Africa's billions?", the organization claims that corruption remains an obstacle to economic development and a major determinant of poverty. Based on survey data on citizens' perceptions of corruption in Africa, the study argues that institutions are a key factor in the prevalence of corruption. The report shows that poor people are twice as likely to pay bribes to gain access to basic services such as healthcare and education than rich people. However, the report goes further, pointing not only to the failures of national administrations, but also to the corrosive influence of foreign actors that perpetuate corruption in Africa.

There is a wealth of literature on the role of institutions in economic growth and development in SSA (Bates, 2006; Fosu et al., 2006). Most of these studies attribute the continent's persistent economic and political deficits to institutions. The empirical studies that have emerged from this realization show that institutions have a strong influence on broad-based economic growth and prosperity (Akinlo, 2016; see Figure 9 in Section 2). This renewed interest in the role of

institutions as drivers of growth in Africa has led to the emergence of a vast literature examining the impact of economic institutions, good governance and high levels of civic engagement on growth (World Bank, 1993, 1997; Sazanami, 1995; Stiglitz, 2022).

Against this background, Vijayaraghavan & Ward (2001) examine the relationship between institutional infrastructure and economic growth in 43 countries in the period 1975-1990 and conclude that the security of property rights and the size of the state are responsible for most of the variation in economic growth. Similarly, Wanjoo & Le Roux (2017) examine the impact of economic institutions on growth in the ECOWAS region. They conclude that the former, in conjunction with private investment, government intervention and economic and social infrastructure facilities, are conducive to economic growth in the region. In view of the empirical results, good governance has become a prerequisite for the granting of loans and financial aid by the International Monetary Fund and the World Bank (Kapur & Webb, 2006) as well as by donor countries (Chang, 2011).

In examining the respective effects of institutions, geography, and trade on income levels in the world, Rodrik (2002) concludes that the contribution of institutions to income growth "trumps everything else" In the same vein, Akinlo (2016) examines the impact of the institutional hypothesis on economic growth in SSA countries between 1986 and 2013, and finds a negative relationship between institutions and economic growth due to the weakness of SSA institutions. He argues that this relationship suffers from the lack of good and strong institutions and that no progressive economic policy works without good institutions.

Goldsmith (1998) agrees with this view and claims that institutions form the basis for reform-oriented economic policy and that where institutions are weak, government policy is also weak. Hadjimichael et al. (1994) test the same proposition using cross-sectional data for the period 1986-1993 and conclude that inadequate economic policies contribute significantly to the decline in GDP per capita in sub-Saharan Africa. Ghura & Hadjimichael (1996) agree with this thesis. They conclude that good public policies stimulate economic growth, reduce inflation, maintain external competitiveness and promote the development of human capital.

Ebaidalla (2014) conducted a similar study in 20 sub-Saharan countries in the period 1985-2007. The result shows that institutional quality combined with a low level of corruption, an efficient rule of law and a strong bureaucracy has a positive impact on economic growth. Furthermore, the author shows that institutional quality has a stronger impact on growth in the former British colonies than in the former French colonies. This result is confirmed by the work of Barro (1996) on growth and democratic institutions. Based on data from 100 countries

between 1960 and 1990, he found that economic growth thrives when the rule of law, the protection of property rights, the promotion of free markets, the minimization of government consumption and the maximization of human capital are promoted. However, the disadvantages of democracy for growth were empirically investigated by Helliwell (1994). Although Helliwell found a negative correlation between certain personal freedoms and GDP, he concluded that the result was not significant.

Although democracy is considered a growth-promoting environment, its relationship with economic growth is often associated with the so-called Lipset hypothesis. This theory states that a certain standard of living – prosperity – promotes more democracy (Lipset, 1959). The argument suggests that improvements in GDP per capita, infant mortality rates and primary school completion rates significantly increase the likelihood that a country's political institutions will become more democratic over time, which in turn fosters an environment conducive to growth. This underscores the importance of good governance for economic growth. The following sub-section takes a closer look at good governance in sub-Saharan Africa.

3.2.3 Literature review on good governance in sub-Saharan Africa

Since the work of Daniel Kaufman and Aart Kraay of the World Bank in 1996, poor governance has been seen as the Achilles heel of former sub-Saharan colonies, especially when it comes to economic growth. This observation has led to the production of numerous empirical studies. The results of these empirical studies suggest that countries with better governance practices are economically more successful and experience higher growth, while countries with poor governance practices experience lower economic growth (Salawu et al., 2018). But first, what is good governance? And does good or poor governance affect the performance of countries, especially in sub-Saharan Africa? I will offer a definition, followed by an examination of the empirical literature to provide some answers.

Kaufman et al. (2000:10) define governance as "the traditions and institutions that determine how authority is exercised in a particular country". According to them, these include: (a) the government selection process, accountability, oversight, and how government is replaced; (b) the government's ability to manage the country's resources efficiently and to develop, implement, and enforce good policy and regulation; (c) respect for citizens and government institutions that regulate economic and social interactions. Kaufman and Kraay identified six dimensions of governance, which I have already discussed in more detail in Section 2.

Gallego-Álvarez et al. (2021:2) refer to governance as "the form of management that aims to achieve sustainable economic, social, and institutional development and promotes a healthy balance between the state, civil society, and the market system" However, the extent to which governance matters in sub-Saharan Africa is supported by empirical evidence suggesting that governance is not only important for growth, but also a prerequisite for broad-based development and prosperity. Kaufman and colleagues argue that good governance is strongly correlated with development (Kaufman et al., 2000). Governance has played and continues to play an important role in the current growth prospects in SSA relative to other parts of the world. Among all the governance institutions mentioned by Kaufman and his colleague, corruption occupies a special place in the development literature of recent decades (Hammadi et al., 2019).

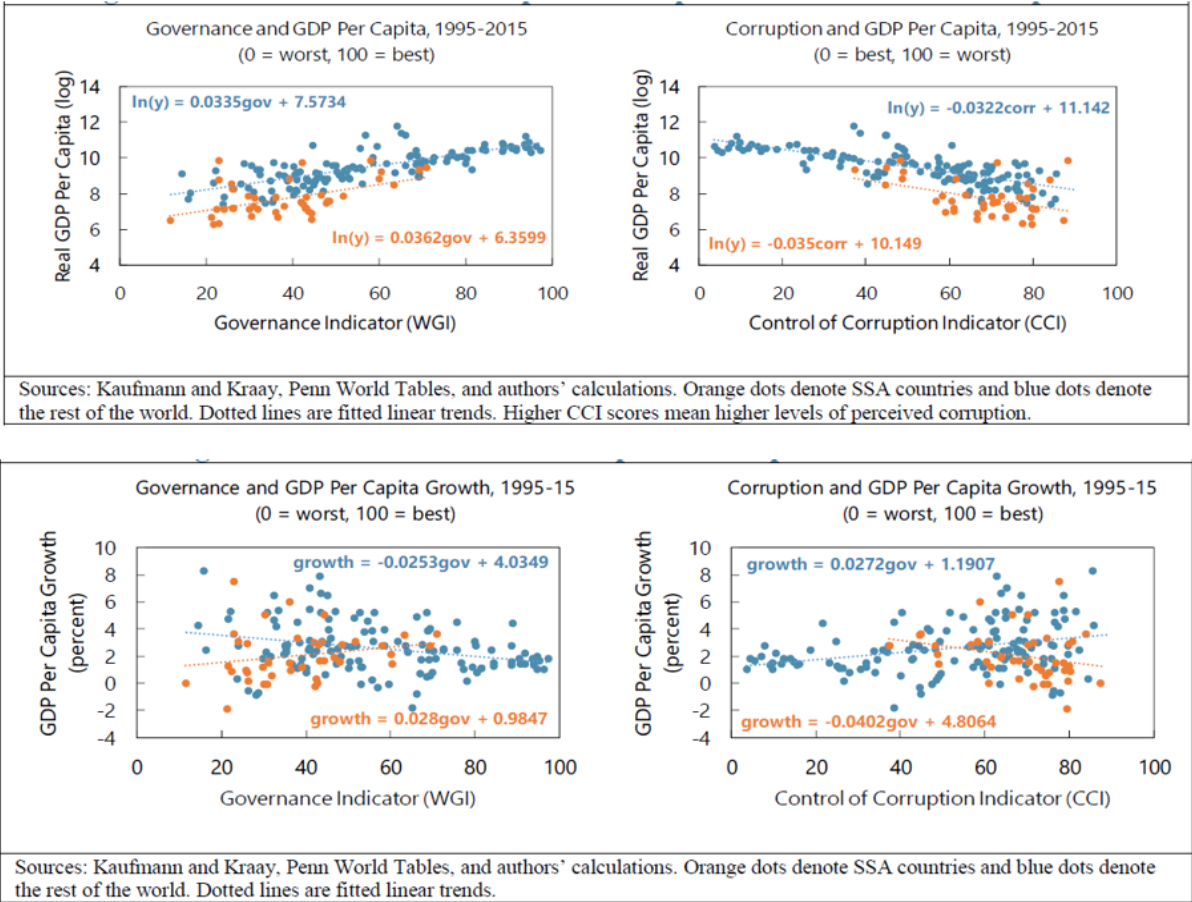
Many organizations, including the World Bank, see corruption as the greatest challenge to the economy and an obstacle to development in SSA (Otusanya, 2011; Feil, 2021). Eighty percent of the region has a corruption below the average globally (Hammadi et al., 2019: Intro. p.4). Furthermore, Sub-Saharan Africa lags behind in terms of property rights violations and perceptions of corruption (World Bank, 2017). Research in recent decades has paid more attention to the problem of corruption (Akai et al., 2005). Although the "grease the wheel" hypothesis remains a facet of the corruption argument in the literature, the vast majority of academic works on the subject confirm the negative impact of corruption on socio-economic development (Al-Sadig, 2009).

Ibrahim et al. (2015) empirically examine the impact of corruption on growth in SSA using data from 1998-2011, and the results show that corruption hinders growth through different channels - gross fixed capital formation and labor force. Consistent with previous studies (Mauro, 1995, 1998; Ugur & Dasgupta, 2011a; Dridi, 2013), the result of their study shows that corruption reduces GDP growth by 0.71 percent. In 2011, Ugur and Dagupta examined 115 existing studies on corruption and economic growth and conducted a meta-analysis of 72 empirical papers of the entire studies using the fixed effects and random effects technique.

The result of the study shows that corruption generally has a negative impact on GDP growth (Ugur & Dagupta, 2011b). However, they conclude that the impact of corruption is worse in mixed-income countries than in low-income countries and that its indirect effects exceed its direct effects. The figure below confirms the overall finding of Ugur and Dagupta's study by showing the impact of corruption and governance on GDP growth in Sub-Saharan Africa and the rest of the world. As the graph shows, corruption and poor governance have an impact on

GDP. The orange dots in the graph indicate the performance of SSA, the blue dots the performance of the rest of the world. The scale for governance performance ranges from 0 (poor) to 100 (good) and for corruption control from 0 (best) to 100 (worst).

Figure 18: Governance and Corruption Control performance on the level of Output per Capita.



Source: Hammadi et al (2019) extracted from Kaufmann and Kraay Penn World Table.

The two charts at the top of Figure 18 illustrate the relationship between real GDP per capita and good governance, and also the relationship between corruption control and real GDP per capita. The first of the two charts show that good governance improves GDP per capita. It also shows that this tendency is much better in the rest of the world than in sub-Saharan Africa, where most countries achieve scores between 20 and 50. The second chart however, shows the impact of corruption on GDP per capita, with sub-Saharan Africa performing the worst compared to the rest of the world. As the chart shows, SSA countries score between 60 and 80 on corruption.

The other two charts in Figure 18 show the impact of good governance on GDP per capita and of anti-corruption on GDP per capita. In the first of the two graphs, the relationship between the two variables is positive, indicating that good governance has a positive impact on per capita

output. As in the previous graph, African regions still lag behind the rest of the world, with most African countries having a governance score between 20 and 40. However, the second chart also shows that corruption reduces per capita performance. In this scenario, sub-Saharan African countries also perform poorly in the fight against corruption compared to the rest of the world, with most African countries having performance scores between 60 and 80.

Although corruption is widely viewed as detrimental to growth, a number of studies have argued the opposite. They argue that corruption promotes economic growth. One notable view of this theory comes from the study of Leff (1964) and (Huntington, 1968/2006), who argue that corruption has a positive effect on growth. According to this thesis, corruption eliminates bureaucratic inefficiencies that hinder investment, thereby improving the efficiency of investment, which in turn has a positive effect on economic growth. (Leys, 1965) and (Ney, 1967) see corruption as a moral problem rather than an obstacle. In recent years, proponents of this theory have argued that corruption facilitates and accelerates transaction processes, thereby improving efficiency as well as productivity (Cuervo-Cazurro, 2006).

Despite the above arguments, it is widely recognized that corruption not only harms economic growth but also weakens institutions, and that good governance can mitigate its effects. Strong institutions eliminate corruption and consequently improve economic growth. Using panel data on GDP growth rate for Nigeria, South Africa and Ghana over the period 1996-2015, (Salawu et al., 2018) examine the impact of governance on economic growth using econometric methods. The result of their study shows an increase in economic growth due to political stability and the fight against corruption in Ghana and South Africa. In Nigeria, on the other hand, governance indicators, i.e. accountability and anti-corruption variables, have a negative impact on the level of national output.

In the same line of study, Wandeda uses a two-stage step systems GMM to examine the impact of institutions on growth over the 2006-2018 period in SSA and reaches several conclusions. The results show that institutional quality significantly improves output levels in SSA. Moreover, the result also shows that this effect varies from west to east, with western regions in SSA having a better institutional effect than eastern and central African regions. The result also shows that the institutional effect on GDP also varies by country income level, implying that improving the quality of institutions leads to better performance in SSA.

After this detailed explanation of the concept of institutions and their importance, especially in the context of Sub-Saharan Africa, I turn to another of the most discussed factors that determine the current economic and institutional situation in SSA. In addition to the geographical and

institutional argument as a reason for the current slow development in Africa, I also turn to the historical argument, namely the issue of slavery (Nunn, 2008) and colonization (Acemoglu et al., 2001, 2002). However, for the purposes of this study, I will only address the colonial issue and its continuing effects on current development in SSA in the remainder of this section.

3.3 The colonization-induced development hypothesis

The colonial origins of development in SSA continue to be the subject of intense debate among scholars and practitioners. The discourse has developed around two lines of argument: On the one hand, there are those who argue that Western colonialism in SSA was bad and harmful to African nations (Fanon, 1963/2007; Bairoch, 1993). On the other hand, there are those who argue that colonization was a good thing and that the experiment as a whole brought significant benefits to the former colonies in terms of health and physical infrastructure (Duignan & Gann, 1967/2013; Gilley, 2017).

Paul Bairoch argues that "there is no doubt that a large number of negative structural features of the process of economic underdevelopment have historical roots that go back to European colonization" (Bairoch, 1993). In his concluding remarks on the impact of European colonialism on Africa's economic development, Settle (1996) argues that development outcomes in Africa would have been different if the continent had never been colonized. He further argues that many of the problems that plague the progress of the former colonies today would not exist.

However, the first of the above arguments, which led to a flood of literature from 1960 onwards, has spawned a plethora of writings in the last two decades asserting the persistence of history through various channels (Acemoglu et al, 2001, 2002; Engelbert, 2000; Huillery, 2009; Grier, 1999; Austin, 2008). This line of study was popularized by a series of papers by Acemoglu and his colleagues in which they argue the occurrence of a "reversal of fortune" in many former colonies and the trivial number of European settlers in Africa. The group was criticized by Austin (2008) for oversimplifying history through their general assertion that prosperous nations in the 1500s were now experiencing income reversals due to institutional changes brought about by European colonization.

Using urbanization data and population density as indicators of economic prosperity, Acemoglu and colleagues find a negative correlation between prosperity 1500 years ago and today's economic growth, reported as GDP growth in the 1990s. They believe that the reason for this

reversal is that Europeans introduced property rights in sparsely populated areas and extractive institutions in urban areas to take advantage of cheap labor (Acemoglu et al., 2002).

According to Acemoglu and his colleagues, the reversal of fortune occurred in previously prosperous regions towards the end of the 18th century. They argue that areas that benefited from property rights were able to reap the benefits of the Industrial Revolution as it provided broad-based economic prosperity. Moreover, even those who were not elites contributed to industrialization (Engerman and Sokoloff, 1997; Khan & Sokoloff, 1998; Rothenberg, 1992).

In their 2001 paper, Acemoglu et al. postulate that the absence of many settlers in the colonies explains the lack of property rights institutions and thus the reason for the slow economic growth in SSA. They argue that extractive institutions were favored and introduced in the colonies because Europeans were discouraged from settling by the diseased environment. Using data on European mortality rates, they find a negative relationship between contemporary economic growth and settler mortality through an institutional channel. They argue that these extractive institutions have persisted throughout history and are the root of SSA's current economic weakness.

As already mentioned, the thesis of the historical origin of developmental problems has led to a wealth of research dealing with the various sources of variation. As I mentioned earlier, the institutional channel has been examined by Acemoglu et al. using the theories of disease and reversal. (La porta et al., 1997, 1999) and Acemoglu & Johnson (2003) have examined colonizer identity to explain differences between colonies. La porta and colleagues argue that the identity of the colonizer plays an important role through the legal system introduced in the colonies.

La porta and colleagues examine the laws protecting corporate shareholders and creditors and the effectiveness of their enforcement mechanisms. Based on data from 49 countries, they concluded that countries that have adopted or retained British common law provide better legal protection for investors than countries that follow French civil law (La Porta et al., 1999). The result also suggests that countries that have adopted the latter legal system have the least developed capital markets.

In a similar study to that of La Porta et al., Joireman (2001) examines the effectiveness of the rule of law in former sub-Saharan colonies where European legal systems were introduced through colonization and concludes that African countries that have adopted British common law generally have better rule of law than countries governed by French civil law. Joireman

reaches this conclusion through a cross-national statistical comparison with data from Freedom House and Political Risk Services.

Klerman et al. (2008) also examine the issue of colonial origin (identity of the colonizer) and growth differences using a sample of 49 former colonies and conclude that the former British colonies grew faster on average than their French counterparts. This was generally attributed to British education policy (see also Klerman et al., 2011). However, Klerman and colleagues conclude that the identity of the imperial ruler becomes insignificant when controlling for geography. They concede, however, that their results are inconclusive due to the sensitivity of their data to regional factors. Nevertheless, they agree with Rostowski & Stacescu (2006, 2008) that colonizer identity of the colonizer matters.

Agbor (2015) goes a step further and examines the mechanism by which the identity of the colonizer influences current economic performance in 36 sub-Saharan African countries between 1960 and 2000. Agbor finds that former British colonies have consistently grown faster than former French colonies over the 40 years covered by his study. Agbor argues that the indirect effect of British education policy is responsible for the difference in economic success. Frankema (2013), however, warns against such a characterization. He advises against overestimating British colonial education and the provision of public goods for schools in British Africa. Agbor found no evidence of the influence of the colonizer's origin on current economic performance through the channel of trade.

Nonetheless, various causes of variations, such as the level of colonial investment, European colonial border policies and colonial rules, have also been the subject of numerous studies. For example, Huillery (2009) examined the impact of colonial investment on current performance using a new data set, while Michalopoulos & Papaioannou (2016) examined the impact of colonial territorial borders on economic development. In a parallel study, Banerjee & Iyer (2005) examine the impact of colonial rule on various outcomes in India, and Mamdani (2020) examines the impact of colonization on ethnic tensions in Rwanda.

Elise Huillery examines the persistence of the colonial legacy in a different way than Acemoglu's much-vaunted hypothesis of bad institutions. She created a new database of colonial investments in education, health care and public works and examined their impact on current school enrollment rates, the number of children suffering from stunting, and access to private water and modern fuel. The results show that one additional teacher or doctor in colonial times leads to a 0.5 percentage point increase in enrollment rates and the number of children

suffering from stunting. In addition, enrollment rates increase by 3 percentage points for every 1 franc per capita spent on public works.

More importantly, today's successes in education, health and infrastructure development are still determined by colonial-era investments. Huillery argues that the persistence can be explained by the continuity of post-colonial investment in the same areas that benefited from the initial higher colonial spending, which explains the different spatial inequalities in the post-colonial period. The more the imperial power spent in these sectors, the more public goods are available today, she claims in her article.

Stelios Michalopoulos and Elias Papaioannou discuss the issue of arbitrary borders created by European colonizers and ethnic division in SSA in an empirical context. On the basis of the ethnolinguistic map by George P. Murdock (1959). They argue that the artificial borders created during the colonial period have led to an ethnic division that explains many of the current development problems and the occurrence of conflicts in Africa. The results of their study suggest that conflict is more common in ethnically divided homelands than in ethnically undivided areas, even after controlling for various factors. Considering that certain country characteristics such as geography, access to the sea, ethnic heterogeneity, etc, have a strong explanatory power for development outcomes (Herbst, 2000; Collier, 2007), the legacy of colonial border politics is of great importance.

It is undeniable that today's borders on the African continent, especially in the former French possessions, and the resulting displacement of ethnic groups from their ancestral territories were orchestrated by imperial powers (Newbury, 1960). One of the most striking observations of European border politics in Africa is the lack of consultation. Territorial divisions among the colonial powers and by the unitary powers themselves were made unilaterally, without regard to cultural realities or the pre-existing historical boundaries of indigenous territories.

A concrete example of this is the ongoing ethnic tensions between the Kikuyu and the Maasai in Kenya, who had lived and overcome their differences in precolonial times. According to Richard Waller's account cited in Spear & Waller (1993) and Parsons (2012), the arbitrary boundaries introduced by British colonial rule helped to exacerbate existing divisions that were never an issue and develop an identity-based relationship symbolized by norms and values alien to the two parties. Ethnic fractionalization is blamed for many of the current economic struggles and lack of democracy in SSA (Campos et al., 2011; Alesina & La Ferrara, 2005) and has been described in recent literature as one of the channels through which the colonial legacy persists (Bayart, 2009).

At the time of its creation, the Niger colony included areas that are now part of Mali, Chad, and Burkina Faso. A concrete example is the city of Gao, which was part of Niger before it was ceded to French Sudan (now Mali) in 1911. Most of the current terrorist activities of the Tuareg, Dossaak and Peuhl, which have both secessionist and religious extremist motives, take place in the Gao region. Ironically, Gao is the border region with Niger and has the same ethnic composition as the areas on the border between Niger and Mali. As with any rebellion, these groups claim to be defending the rights of marginalized nomads, while their true motives remain hidden. These two examples partially give some substance to the findings of Stelios Michalopoulos and Elias Pappaioannou in 2016.

In the literature, the style of governance of the colonizers is cited as a possible cause of sluggish economic development in contemporary SSA. The European powers used different forms of administration in their colonies. The direct and indirect forms of administration, attributed to the French and the British respectively, are often discussed in the literature. The former is known for its direct style of government, the latter for its indirect administration. Although the literature refers to a mixed form of government in some colonies (Herbst, 2000: 81-89), colonial rule will not be discussed in this subsection, as this is not the purpose of this subsection. It will be discussed in more detail in the next section.

However, Mahmood Mamdani argues that the form of institutional administration in SSA during the colonial period had a greater impact on Africa's development performance than the predatory exploitation of the continent (Mamdani, 1996). He argues that colonial rule led to the emergence of "centralized and decentralized despotism" and the transformation of trivial and often non-contentious differences between natives into sharp "customary" differences that, over time, developed into extreme ethnic identification and cultural distinctiveness. But which colonial strategy (rule) was more damaging and continues to have an impact today? Opinions continue to differ on the answer to this question.

In 2005, Abhijit Banerjee and Iyer Lakshmi studied the impact of British administrative rule in India and found that districts under direct colonial rule had fewer public goods than those under indirect rule. They argue that areas where the British granted more autonomy to local landowners (indirect rule) had lower agricultural productivity after independence than those where autonomy was left to the farmers themselves. A similar study by Iyer (2010) concludes that areas that were under direct rule now have poorer access to schools, health care and roads than areas that were under indirect rule in India. However, empirical evidence from other studies shows different results.

Chlouba & He (2021), for example, come to a different conclusion than described above in their study in Namibia. They find evidence of an increase in commercial agriculture in formerly directly administered areas during the colonial period and lower agricultural productivity and market size in formerly indirectly administered areas in Namibia. While the findings of Chlouba and He are in contrast to the findings of Banerjee & Iyer (2005) and Iyer (2010) in the case of India, they seem to be corroborated by the work of Tadei (2015). In a way, this contradicts the general assumption in the social science literature that British indirect rule was less extractive than French direct rule. He points to the different experiences in British East and West Africa.

Leeson (2005) also addresses this issue and confirms the negative effects of indirect rule. He claims that indirect colonization led to a distortion of trade and cooperation between the former colonies. Bayart (2009) attributes the “politics of the belly” of post-colonial states in Africa partly to colonization. So does Mamdani (1996), who links the current fragmentation in SSA to colonization and indirect rule in particular. Ranger speaks of the invention of tradition in Africa by the Europeans (Ranger, 1997). In line with Richens (2009) and Ranger's study, Mamdani argues that "the African was containerized, not as a native but as a tribesperson... [because] customary law was defined in the plural, as the law of the tribe, and not in the singular, as a law for all natives" (Mamdani, 1996:22). Richens confirms Mamdani's view by concurring that indirect rule through ethnic fractionalization and access to resources has implications for long-term economic growth.

In this section I have examined the colonial variable in detail. In doing so, I have examined various empirical and theoretical literature to identify the hierarchical chain of responsibility for the current economic and institutional problem in SSA. The overwhelming majority of studies examined suggest that the European colonial legacy remains one of the main causes of Africa's current plight. Although contradictory arguments have been made against the thesis of colonization-related development problems in SSA, the evidence suggests that many of the pro-colonial arguments, namely Duignan & Gann (2013), including Gilley (2017), are simply Eurocentric, tribal, pejorative and intellectually dishonest.

Despite the grandiloquent speeches of colonialism advocates such as those mentioned above, the damage that European colonialism inflicted on Africans in addition to four to five hundred years of slave trade is a fact and remains a stain on the moral universe. It was an assault on human sanctity for which the victims received no apology or compensation from the perpetrators. There was no demand for it, and as far as I know, the victims did not ask to be

"civilized" either. Therefore, the "kindness" of the "savior" was not justified regardless of the alleged benefits.

African institutions (political, economic, educational) were reshaped as a result of unsolicited European aggression and indigenous socio-cultural relations were severely damaged as I have documented extensively in this section. Today's formal institutions in Africa are the legacy of European colonialism. They were either imposed on the colonies at the beginning of independence or "voluntarily adopted" by the colonies and are therefore alien to the local's cultural values. Furthermore, the reasons for the differences lie not only in the various forms of colonial strategies (direct and indirect), but also in the forms of administration themselves and within the colonies. Nonetheless, this analysis does not ignore the influence of other factors that have contributed or may still contribute to the current development problems of the region.

The economy of the former colonies during the colonial period was mainly reduced to the role of producer of primary commodities and mineral resources in the later phase of colonization (shortly before independence) Rodney (1972/2018). A similar pattern can be observed across SSA today (Collier & Hoeffler, 1998), see also (Sachs and Warner, 1995). Furthermore, the colonial period was characterized by political instability as colonial rule had disrupted the leadership structure of Africans (Njoh, 2000). Even today, most countries in the SSA region face the same problems. These factors and other observable patterns are fundamental to any development prospects (North, 1990).

So does colonization have anything to do with these persistent patterns? The empirical evidence seems to favor the colonial explanation in many cases. Considering Austin's (2008) critique of Acemoglu for "compressing history", it is a fact that African states have inherited extractive institutions rather than those that promote property rights and economic development. One can debate whether or not the reduced number of European settlers due to disease had an impact on the adoption of the so-called "better institutions", but the variable that has never changed in this debate is the choice and adoption of an institutional system by Europeans in Africa that does not promote economic growth and development, regardless of the question of intent.

Looking at the global value chain today, it is difficult to dismiss the notion that the cash crop economy established during the imperial occupation of SSA is not a continuum of unproductive economic system for the African labor force, given that African states remain producers of natural resources in the global marketplace. Tadei (2020) uses a new dataset to measure the extent of the colonial system of natural resources through trade. To do this, he compares the prices paid to African producers with the prices that could theoretically be achieved in a

competitive market. Tadei's study concludes that local producers' revenues were 2 percent below market prices, which means a loss for local producers.

In light of this observation, I argue that one of the lasting effects of colonial rule is that most countries in SSA have remained "upstream economies" and the Western world "downstream economies". I will discuss this statement in more detail in section 5. Before we embark on this journey, however, let us look at the historical background of European colonialism, a time when everything changed in Africa. Africa, as Young (1994: 9-10) notes. Considering the fact that Africa was the very last continent to be colonized, the question arises as to what was the trigger or motivation for these efforts. In the following section, I will shed light on this crucial aspect of a period in African history that, although short compared to other historical events, changed the course of history and led to the states as we know them today in Africa.

4. Historical background of European colonialism in SSA

The historical background of European colonization in SSA is well documented. In general, it can be described as the result of a chain reaction of historical events rather than a historical accident that began with the Portuguese in the 15th century. Contrary to popular belief, the early colonial experience of Europeans in Africa extends beyond the period of slavery and the formal invasion of the continent in the 19th century. It can be traced back to the Greeks and Phoenicians in Naucratis (near Alexandria) in Egypt under the rule of Pharaoh Amasis (570-526 BC) (see Boardman, 1964).

In Section 3, I presented an extensive literature that draws on natural factors such as geography operating through institutional channels, as well as the weak institutions argument, to explain the European occupation of Africa and the rest of the world (Diamond, 1997; Engerman & Sokoloff, 1997; Acemoglu et al., 2001, 2002). In this and the following sections, however, I will first explain the chronological development of European colonialism up to its official beginning in Africa. I will then outline the motivations of the colonizers in Africa, and examine the colonial experience in the French and British territories in the context of political, economic, and socio-cultural aspects.

4.1 Early colonial experience and phases of colonization

In his argument on European colonialism, Bruce Gilley describes Western colonialism as the "... civilizing mission – without scare quotes – that led to improvements in living conditions for most Third World peoples during most episodes of Western colonialism." (Gilley, 2017:1). Furthermore, on page 1 of his article, he argues that "Western and non-Western countries should

reclaim the colonial toolkit and language as part of their commitment to effective governance and international order", which essentially means re-colonizing former colonies. Regardless of how one feels about Gilley's grotesque assertion, most scholarly researches show that despite their wealth of natural resources, former colonies in SSA lag behind many nations in the world in terms of development (Appleton et al., 1996; Khalil et al., 2007).

However, the main criticism of Gilley's characterization of European colonialism and the entire premise of his argument regarding its benefits, is the historical inaccuracy, to say the least, the lack of critical analysis and insensitivity, expressed in his work. There is no "case" to make for European colonialism in Africa, as Klein (2018), Dupraz & Rueda (2017) and Brandon & Sarkar (2019) argue. On the contrary, there is an argument against European colonialism, as asserted by Rodriguez (2018) and Taylor (2018). Gilley's patronizing article was rejected by many scholars, who called for its retraction, and also led to the resignation of numerous members of the editorial board (Olesky, 2019). However, this strong anti-colonial reaction also led to counter-opinions supporting Gilley's controversial article (Taylor, 2018).

The term colonialism is generally defined as the process by which a country exercises control over a territory and subjugates its inhabitants through coercion (see Horvath, 1972).

Throughout history, there have been economic and cultural reasons for colonization (Buhlan, 2015). Buhlan describes three precursors of European colonialism in Africa: the Crusade, the colonization of the Americas, and the Atlantic slave trade. In his view, these precursors paved the way for what he calls classical colonialism, which began in the 19th century. In addition to Buhlan's observation, the early colonial experience in SSA also indicates that other factors may have contributed to the colonization of Africa (Caplan, 1969).

In an examination of the colonial experience in Barotseland, Caplan shows that internal power struggles in the kingdom, coupled with the arrival of Europeans seeking concessions, were instrumental in bringing the kingdom under colonial rule. Despite his good intentions for the Lozi people, King Lewanika found himself in a quandary. On the one hand, the king feared for the stability of his own position due to enemies within the ruling leadership and the neighbouring Ndebele tribe; on the other hand, he needed and sought the protection of the British crown, knowing full well the consequences his actions or inactions could have for his people.

Hoping to take advantage of European education and superior military in the form of purchasing high calibre weapons, the king hoped to quickly build a strong Barotseland to not only suppress opposition within the ruling class and the enemy, the Ndebele, but also to keep other western "concession seekers" at bay. Faced with pressure from the arrival of European imperial powers and the possibly inevitable takeover of his kingdom, the king had to act quickly and prudently as opposition to cooperation with the Europeans grew in his kingdom. In this untenable situation, he, like his friend Khama of the Ngawato, sought the protection of the crown through a French missionary, which eventually set in motion a long and arduous process of brinkmanship between the negotiating parties.

European colonialism, however, began in the 15th century with the Age of Discovery of Portugal under the reign of Henry the Navigator. It led to the discovery of new trade routes to India and new lands suitable for the cultivation of sugar, tobacco and cotton, as well as the establishment of colonies in the New World. The abundance of fertile land for growing these high-yield crops required cheap or free labor, which the Atlantic slave trade provided in abundance – two situations that complemented each other perfectly (Buhlan, 2015).

However, with the onset of the Industrial Revolution in the early 18th century, slavery became increasingly unprofitable (William, 1994/2013; Ryden, 2009). Faced with the diminishing marginal returns of the slave economy and the development of burgeoning industry in Europe, which required raw materials, cheap labor and new markets for manufactured goods, the logical reaction of Europeans was to replace the old inhumane methods with a more "humane" or, shall we say, "morally acceptable" form of economic activity that guaranteed a higher return (William, 2014). Motivated by greed, self-enrichment and a 'delusional' civilizing spirit driven by the idea of cultural superiority and self-aggrandizement, Europeans, led by the British, began to abolish the institutions of slavery in favor of an economic model based on trade in non-human commodities, but without renouncing the use of forced labor (Frankema et al., 2018; Waijenburg, 2018).

Before the territorial division of Africa, European influence was limited to a few inhabited areas (e.g. Cape Verde, São Tomé and Príncipe) occupied by the Portuguese and a few small trading posts on the coast belonging to various European trading companies. However, the inevitable abolition of the slave trade in the British and French colonies in 1834 and 1848 respectively led to a race to the bottom. At this time, with the exception of North Africa and part of the South, the continent was virtually unexplored, due in part to the disease environment (Acemoglu et al., 2001) and also to European involvement in the New World. However, following several

exploratory missions into the interior of Africa between the mid and late 19th century (Papaioannou & Michalopoulos, 2016), imperial nations began to lay claim to African territories, a phenomenon referred to as the "Scramble for Africa".

4.2 The “scramble” for Africa and the territorial partition of the continent

The origin and beginning of the partition of Africa is still disputed. However, the general consensus is that the signing of the Treaty of Brazza, in conjunction with a series of maritime and diplomatic actions by the French between 1882 and 1883 in the Gulf of Guinea, marked the beginning of the "scramble" over territory in the West African region (Gallagher & Robinson, 1961; Hargreaves, 1963; Newbury & Kanya-Forstner, 1969). Although the reasons for the escalation of French involvement are not fully understood (Newbury & Kanya-Forstner, 1969), France's reliance on the prevailing policy of "les politiques des points d'appui" gave way to a more hands-on policy to keep the commercial benefits of the region away from the British (ibid.).

According to Newbury and Kanya-Forstner, Louis-Alexander Brière, who became governor of Senegal in 1876, acknowledged that the "scramble for Africa" had begun as early as 1878. Although political domination was not yet on the agenda of French imperialists in the mid-1800s, it became increasingly clear over time that total occupation and control was the only solution to further French commercial interests and prevent rival imperial adversaries such as Great Britain from advancing further into Africa at France's expense (Newbury & Kanya-Forstner, 1969; Gallagher & Robinson, 1961).

Similar views on the origin of the "scramble" can be traced back to earlier writings by Lenin and Hobson, who see the rise of European imperialism as an expression of economic competition and the urge to find places in which to invest the surplus capital from these economic forces. In contrast to those who attribute the partition of Africa to the rivalry of Europeans, particularly France and Britain, some historians have explained the "scramble" in terms of both endogenous and exogenous factors (Hopkins, 1968; Asiwaju, 1985; Uzoigwe, 1976). As far as exogenous factors are concerned, Hopkins assumes that in cases where the "commercial transition" was successful, external pressures drove the partition, and that in cases where it was not successful, internal reasons provide a better explanation.

Asiwaju agrees with Hopkins and attributes the "scramble" to the shift in the "balance of power" in Europe after the rise of Germany and to intra-African conflicts (p. 320-322). However, Boahen argues that the origins of the "scramble" go beyond economics and points to social and

political conditions as equally important triggers of the "scramble". He argues that the internal instabilities highlighted by Hopkins and others are nothing new in Africa's history and that these experiences in the past did not lead to a division of the continent. He points to the conquest of Southeast Asia and argues that the "scramble" was not specific to Africa. Boahen blames the "economic, political and social dynamics of Europeans in the late 19th century" for the "scramble" (Boahen 1989:29).

The "scramble" for Africa is the period in which most of the territories in Africa were occupied by Europeans through direct invasion or treaties with native chiefs. This was followed by military conquest and a phase of "pacification" (Michalopoulos & Papaioannou, 2016). The race for territory in Africa led to growing rivalries and tensions between European nations, which threatened to degenerate into open warfare, particularly between Britain and France (Craven, 2015). Otto von Bismarck recognized the urgency of the matter and convened a meeting of 13 European nations, ostensibly to abolish slavery and bring "civilization" to the "heathens" (ibid.). This meeting became known as the Berlin Conference and took place between 1884 and 1885.

However, the overwhelming consensus suggests that the true motive of the conference was primarily economic Florestal (2007), rather than a sudden "come-to-Jesus moment" after more than three centuries of moral lapses (the latter statement is a reference to the European slave trade). In addition to recognizing the Congo Free State (Uzoigwe, 1976, 1984:17), the Berlin Conference laid down three important principles for the division of the continent:

- The first principle is the hinterland doctrine, which states that any nation that lays claim to the coast is also entitled to the hinterland.
- The second rule is the principle of effective possession. It states that any claim to territory must be based on a treaty with local native leaders.
- Finally, for any land claimed, the claimant must exercise significant control over the territory, which is called the principle of effective occupation.

For more details on the on the partition and the implication of the Berlin conference, (see Wesseling & Pomerans, 1996, Wesseling, 2004/2015).

The "scramble" for territories in Africa is characterized by a number of important factors that explain its economic logic. First and foremost, it marks the abolition of the slave trade, which ultimately triggered the commercial transition to which numerous scholarly works have been

devoted (Dike, 1956; Lovejoy, 1989; Hopkins, 1973/2020; Law, 2002). The commercial transition is the transition from the slave economy to trade in export physical goods in the 19th century (Hopkins, 1968; Austen 1970; Klein 1972; Eltis, 1987; Law, 1993).

The second factor is what I call the "race to the bottom". It was characterized by various voyages of exploration into the interior of Africa to secure European interests (Livingstone; 1857; Mazrui, 1969; McLynn, 1992). This period is characterized by the race to acquire land through mostly unilateral treaties. Between 1860 and 1914, European powers secured hundreds of zones of influence either through bilateral and multilateral treaties or simply through unilateral claims (Papaioannou & Michalopoulos, 2016), see also (Pakenham, 1991/2015).

Thirdly, the scramble for lands threatened to degenerate into a war between the imperial nations, as they could not agree on which nation should get what, i.e. how the spoils should be divided. At this point, there were no rules for the division of the 'spoils' before the Berlin Conference (Brooke-Smith, 1987; Craven, 2015). France and Great Britain were the main belligerents. It is fair to say that the Berlin Conference, organized by the then German Chancellor, is the most memorable milestone in the "scramble" for Africa. The conference not only confirmed the end of slavery, but also attempted to defuse the increasing tensions over territory and set the general rules for the division and control of the continent (Wesseling, 1996; Uzoigwe, 1984).

The fourth factor that characterizes the "scramble" is the result of the action itself. It led to the creation of artificial borders beyond ancestral territorial demarcations, without regard to cultural and ethnic concerns and, above all, without any African participation in the decision-making process (Papaioannou & Michalopoulos, 2016). According to many, this deliberate and unpredictable approach was more harmful than colonization itself (Asiwaju, 1985), see also Wesseling (1996) and Herbst (2000). However, recent debates on the politics of Africa's territorial boundaries during the colonial period suggest that the spatial delimitation of Africa began before the Berlin Conference (Katzenellenbogen, 1996; Ramutsindela, 1999), with Africans also playing a role (Touval, 1966).

"It didn't happen in Berlin". This is the central argument of Simon Katzenellenbogen and several scholars (Katzenellenbogen, 1996; see also Bley, 2005; Crowe, 1942 for more on this line of argument). Katzenellenbogen refers, for example, to the boundary between Lesotho and South Africa, which he argues was set by the King and the British Crown. Professor J.D. Hargreaves, Foster Mommsen and Robinson also refute the claim that the borders of Africa were drawn by the Europeans after the Berlin Conference.

They have all argued, as cited in (Ramutsindela, 1999), that the territorial division of the continent was not due to the conference, but that the conference merely established the rule for the effective claim to territories in Africa. However, this assertion is nothing but circular reasoning because the desire to establish the ground rule or procedure for claiming a place actually means dividing the continent without explicitly saying so.

It was not in the interest of the Europeans to engage in anarchic land-grabbing, as this would have led to wars between them and thus benefited the Africans. The argument that the natives were not passive actors in the "scramble" and in the territorial division of the continent is also confirmed by (Touval, 1966). While he emphasizes that the native chiefs were fully aware of the "Faustian" treaties they had made with the "white man" and thus knew the consequences of their actions, he also claims that the Europeans generally had no intention of keeping their end of the bargain. This suggests that, despite their distrust of the conquerors, native chiefs basically had to make the difficult choice between two different evils: the growing internal pressures they faced and the external threat of European occupation.

The final factor that characterizes the "struggle" for Africa is the military conquest. It would be a little naïve to claim that the actual occupation of Africa was an easy task from start to finish. The occupation of Africa was achieved not only through treaties on paper that gave Europeans property rights, but above all through sheer violence. I will discuss this aspect in more detail in subsections 5.3 and 5.4. Before that, however, it is important to know what motivated the Europeans to colonize Africa. In the next subsections, I will address this question by examining the necessary conditions that, according to Frankema et al. (2018), favoured the "scramble" for Africa and thus the motivation for colonial decisions in Africa.

4.3 The Changing Conditions of the African Economy in the 19th Century: the Commercial Transition

The preconditions for the "scramble" for Africa are still disputed (Korieh, 2000). At the center of the debate is the impact of the changing conditions of the African economy in the 19th century, particularly in West Africa, which economic historians refer to as the commercial transition (Davidson, 1961; Hopkins, 1968, 2019; Lynn 2002; Frankema et al., 2018). As mentioned above, it marks the move away from the commodification of people in favor of trade in physical goods. Although commodity trade between Africa and Europe preceded the commercial transition (Roberts & Mann, 1991), it was only after the abolition of slavery that the economic model of commodity trade came to the forefront of foreign trade with Europe against the backdrop of the Scramble (Frankema et al., 2018).

To this day, there are numerous scholarly studies that deal not only with the question of how the commercial transition emerged, but also with how it formed the breeding ground for the division of the continent, as Hopkins (2020:27) notes after revising his original view on the subject. On one side are those who argue that the transition meant that those involved in the original trade had difficulty adapting to the new trade, regardless of those who benefited through the supply of primary goods. On the other side are the proponents of the continuity argument, who assume that the transition caused states to increase their use of slaves to increase their share of the trade in material goods (Korieh, 2000).

In addition to the dichotomous view mentioned above, there is another line of explanation that assumes that the transition from slave to commodity trade occurred without any crisis (Klein, 1972). Klein argues how the commercial transition from human to commodity trade in the context of groundnut cultivation influenced socio-economic and political dynamics in Senegambia. According to Klein, peanut cultivation empowered farmers by providing them with financial resources and weapons with which to defend themselves. According to Klein, the trade in this commodity evened out the balance of power, as the production of the staple food (peanut) did not require large amounts of capital, unlike the slave trade, which was in the hands of the elites.

In line with the existing literature, however, I concur that the commercial transition in 19th century Africa was by no means a sufficient but a necessary condition for the "scramble". This view is also supported by Klein (1972:424). Similar evidence can also be found in the studies by Frankema et al. (2018) and Austin (1996). They all point to booming domestic and foreign trade in the years before the "scramble. Frankema and colleagues note that prices for exports rose before the partition of the continent, between 1835 and 1885, and fell to the same extent during the colonial period. Klein argues that peanut production, combined with internal pressure from European merchants on political elites to compensate for lost profits from the slave trade, provided the economic basis for continued British and French involvement in the region.

However, this subsection will not discuss in detail whether the switch to trade in primary commodities was an adaptation problem or a continuation of the old way, but will recognise the fact that it offered Europeans the opportunity to compensate for the loss of revenue they had suffered by abandoning the slave trade. Although the slave trade brought great financial benefits to all actors involved (Europeans, African elites, and Arab traders), it was not the only element in the basket of tradable goods, both foreign and domestic, even before the commercial transition (Hopkins, 2020: ch. 4-5). The renewed involvement of European actors in Africa due

to the substitution effect caused by the high cost of the slave trade would not have been possible without a profitable substitute good.

Another interesting aspect of the period between the end of slavery and the beginning of colonial conquest in Africa is taken up in the studies of Professor Adu Boahen and J.F. Ade Ajayi. Professor Boahen argues that before 1880 there was no "sign or evidence" that Africa was in danger of being colonized (Boahen, 1989:1). On the contrary, he argues that the vast majority of African states were sovereign and local rulers had full control over the polity, economy, and destiny of their territories. The period following the abolition of the slave trade in Africa was characterized by a series of political, economic, intellectual, and social changes that Boahen argues have not been adequately acknowledged in the colonial literature (p.1). Boahen also claims that Africa was on the cusp of significant development in all areas in the eighty years before the colonial conquest began (p. 1). But unfortunately, in his view, this development came to a halt in the 1880s.

Considering the above, I argue that the 19th century in Africa is characterized by very important trends and changes (Hopkins, 1968; Klein, 1972; Boahen, 1989; Ajayi, 1989; Frankema et al., 2015). First and foremost, it marked the emergence of a new economic model based on trade in primary commodities after the end of slavery, but also the unfolding of several socio-political dynamics (Boahen, 1989; Ajayi, 1989) that, in my view, anticipated the negative impact of European colonialism on African development.

Economically, the shift to trade in agricultural products led not only to an increase in the number of participants in domestic and foreign trade, but also to a better redistribution of wealth that had previously been monopolized by the ruling class and a few merchant groups (Boahen, 1989:4; Ajayi, 1989:25). This subsequently led to a better balance of power among the locals, as described by Klein (1972:421). Another important factor that characterized the economic dynamics in 19th century Africa is what economic historians refer to as the "commercial unification" of Africa (Boahen, 1989: 5-7; Ajayi, 1989:25). In line with Curtin et al (1978: ch. 14), they describe this process as the commercial integration of the four corners of Africa, including the central regions, through routes and waterways.

Boahen and Ajayi seize on Curtin's observation (p. 419) about the existence and merging of the three separate and independent trading systems in Africa, namely the Atlantic, Mediterranean, and Indian Ocean trades, prior to the "commercial transition" of the 19th century. These developments had profound social and economic effects on the continent, which, according to

Curtin and Colleagues. (p. 420), led to the unification of local trading networks, "spatial specialization," and greater elasticity of trade relations across much of Africa.

On the social level, the new long-distance trade that emerged precisely from this trade association paved the way for the emergence of a new generation of merchants based on merit rather than birth right, particularly in Central and Equatorial Africa, thus ending the "old aristocracies" It also accelerated the spread of certain languages and cultures, such as Swahili, from East Africa to Central Africa, particularly in Eastern Zaire and Southern Africa, especially Zambia. For example, by 1880, the "cultural unification" of Central Africa was in full swing, and new social and cultural developments were occurring (Boahen, 1989: 7). Further examples of the spread of linguistic and cultural development can be found in Boahen (1989: 7-8).

Demographically, the end of the slave trade led to a decrease in internal wars and slave raids, which quickly translated into a peaceful and stable environment across the continent⁴. However, we know that peace and security are fundamental to economic growth and development (Santhirasegaram, 2008). The relatively peaceful environment created by the abolition of the slave trade subsequently led to the rise of the "nouveau riche" in rural areas and entrepreneurs in the former urban and market centres, without distinction of gender. This, eventually led to the emergence of "rural capitalism" (Boahen, 1989:5). The end of slavery also led to an increase in population. One of the features of the slave trade is the depopulation of Africa through the forced deportation of Africans to the New World (Manning, 1990; Nunn, 2008). Manning assumes that without the slave trade, the population of Africa in 1850 would have been half as large (p. 171).

After the steady increase in population following the end of slavery, there was a temporary decline between 1880 and 1910 due to the "disease environment" Acemoglu et al. (2001). This temporary decline was halted by various developments in health science, particularly after the introduction of quinine (Frankema et al., 2018). In parallel with population growth, another social dynamic occurred throughout Africa prior to the 1880s. That is the mass migration of people due to population pressure and political violence. These trends included the "Mfecane" in the 1800s (Binckes, 2019), the Yoruba migration from the savannah to the forests of Nigeria (Ajayi, 1989:15), the Ckokuwe in Central Africa (Austin, 2008), the Azande from West to Central Africa (Evans-Pritchard, 1971), and the Fan people in Equatorial Africa (Boahen, 1989:14).

⁴ Wars and slave raids were the driving force for the maintenance of the slave trade (Boahen, 1989:4)

Another aspect of the abolition of slavery is the integration of the African economy into the world capitalist economic system, a phenomenon that was reinforced during the colonial period (Klein, 1972; Boahen, 1989, Ochonu, 2018). It should be noted, however, that this integration of the African economy into the world capitalist system preceded the developments and changes of the nineteenth century Ajayi (1989: Ch. 2). It dates back to the mid-eighteenth century. Ade Ajayi argues that "the nineteenth century should be seen as the result, not the cause, of Africa's incorporation into the world economy" (p. 10).

However, a further point regarding the end of the slave trade, which Boahen calls the most important, is the restoration of the status of the African man. He was no longer a mere commodity, but a being capable of producing tradable goods. This statement is certainly true, but the abolition of slavery did not prevent the use of slaves on plantations and in households, as well as forced labor policies such as the "indigénat" throughout the continent at the time and during much of the colonial period in Africa (Hopkins, 1968; Klein, 1972; Mann, 2009; Frankema et al., 2015; Van Waijenburg, 2018).

Politically, the nineteenth century was a time of strong centralization. Boahen (1989: 7) notes that there were more large and centralized states around 1880 than at the beginning of the century. Ajayi (1989: 23-24) makes a similar observation. Despite the decline of some well-known empires such as Asante and Oyo, both authors point to the emergence of centralized states such as Sokoto, Tukolor, and Samori Touré's Wassolon Empire in West Africa. Other examples include the Ethiopian, Buganda, and Bunyoro kingdoms in the east, the Egyptian state in the north, and the island state of Madagascar. Boahen contends that in several of these newly formed empires and states, there was not only a successful attempt to achieve a "cultural renaissance" (Ajayi, 1989: ch. 13), but also to establish a "true nation-state" by imposing the language and culture of the conquerors on the conquered states or dynasties.

In addition to the trend of political centralization, there was also a process of modernization and constitutional experimentation in Africa prior to conquest and colonial occupation (Boahen, 1989: 8; Ajayi, 1989:24). These dynamics make it clear that Africa was not stagnant before colonial rule. This pattern of dynamic changes is not new in African history if one is familiar with the civilization of the Niger-Bend and Volta basins (Kaké, 1974, Izard, 1984; Diop, 1987). Since the seventh century, Africa has experienced several changes, most notably the introduction of Islam, which, with few exceptions, occurred non-violently through trade (Diop, 1987: ch. 7; Ajayi, 1989:15). Diop argues that the main reason for the acceptance of Islam in

"black Africa" is its peaceful spread by "Arabo-Berber travellers to certain black kings and notables" who in turn spread it among their subjects (p. 163).

According to Ajayi (1989: 24), the emergence of significant numbers of educated Africans with Western training as well as Muslim "Ulama" demanded a review of the existing power structure in most African states. They demanded greater political participation in the administration of their countries. This led to conflicts between the conservative ruling class and the newly educated social classes, which were often resolved either peacefully or through the use of "jihad," as in the case of the Muslim "Ulama" (Boahen, 1989:9). Examples include the conflicts between the educated Fulani and the aristocratic Mande and Hausa, or the rebellion of the Dyula merchants against the ruling traditional class.

Disputes over political participation, however, were not always settled by force. An example of this is the case of the Fante Confederacy on the Gold Coast (modern day Ghana). The confederation was formed to promote and improve cooperation among the Fante peoples. The goals of the Fante organization indicate that prior to colonial rule, Africans placed great emphasis on the education of their people, both literally and technologically, as well as self-reliance, developmental reform, and accountability (Boahen, 1989:10-11; Adick, 2021).

Professor Boahen argues that if Africa had not been hindered in its natural development process, it could have achieved very different results because the continent did not lack progressive initiatives. This is consistent with J. E. Casely Hayford's observation about Fante's efforts. He argues that the future of not only Ghana but the entire West African region would have been different had the Fantis project not been halted by the British in 1873. He laments that the "dream" was thwarted by a stupid officialdom and bureaucracy (cited in Boahen, 1989:12). Ajayi takes a similar view in his 1989 study, arguing that the reform would have had a "major impact" on Africa if the British had allowed the "Fante Constitution" to be fully implemented (p. 24).

A similar example of nonviolent political modernization is the Egba United Board of Management in Abeokuta, which was established to integrate European constitutional procedures into the traditional African political system, including the promotion of "civilization," Christianity, and the protection of property rights through the development of trade Ajayi (1989:24). Nonetheless, the significance of the political reforms adopted by the newly emerging states in nineteenth-century Africa and halted by the imperial powers is further evidence of the profound effects of colonial rule.

Moreover, as Boahen points out, it is important to emphasize that Africa as a whole was not alien to the scientific, industrial, and technological changes that occurred in the West as a result of the Industrial Revolution. On the contrary, he argues that some African states had already been exposed to European industrial capitalism through Western explorers, missionaries, merchants, and businesses and therefore sought to benefit from modernization (p. 8). The question of whether Africa was unable to take advantage on the Industrial Revolution, as Acemoglu et al. (2002) seem to claim, or whether it was prevented from doing so, should therefore be worthy of scholarly discussion.

For example, printing presses were introduced in Egypt in 1822, almost 20 years before the occupation of the country, and between 1805 and 1848 several textile, cotton, paper, wood and glass factories were founded. Public works were also carried out in countries such as Tunisia and Ethiopia, and most Berber states had replaced their monetary system. In the military sector, some states, particularly in North and West Africa, had adopted modern measures in the form of training, recruitment and equipment. In Morocco, for example, an engineering school was set up in the city of Fez to train the population in new military techniques, construction and cartography. The military was also modernized in Ethiopia under Menelik and in the Kingdom of Wassolon under Almamy Samori Touré, which enabled Ethiopia to maintain its sovereignty against the Italians and helped Samori to resist the French occupation for eighteen years (Boahen, 1989: 8-9; Peterson, 2008).

On a religious level, there were a number of social changes before the invasion of the continent by the Europeans, particularly in West Africa. This development has been described by historians as the "triumph of the power of literate ideas" (Hiskett, 1984: Summary). From Hausaland in 1804 to the Macina regions in 1818 to the Bambara areas in 1852, Islamic scholarship and science spread rapidly under the Muslim leadership of several African statesmen (Ajayi & Crowder, 1973: Ch. 1), see also (Hunwick, 1997).

Contrary to the Eurocentric views of Hugh Trevor-Roper, who condescendingly asserted that "there is only the history of Europeans in Africa" and that "the rest is darkness", and de facto labelling the continent as "unhistoric" (Trevor-Roper, 1969:6), Africa has a long-recorded history dating back to the 15th century. In the areas where Muslims lived, particularly in Timbuktu, these records were written not only in Arabic, but also in Ethiopian Amharic and in many Christian enclaves (Bortolot, 2003). This period far predates the arrival of the Portuguese in Africa and the rise of Europe in the 16th century.

By 1880, Islamic civilization had reached almost all parts of Africa by various routes. The Christian revolution in the 19th century, confined primarily to coastal areas, also experienced a crescendo similar to the spread of Islam in Africa (Oliver & Atmore, 1967/2005; Oliver, 1969; Boahen, 1989). Despite the small presence of missionary organizations in Africa at the beginning of the century, by 1840 the number of Christian societies had increased significantly and had spread beyond the coastal regions to the interior in the four corners of the continent (Boahen, 1989:15). In addition to evangelizing and converting the natives, the Christian organizations also taught various skills such as carpentry, printing, and tailoring. They promoted literacy in western education by establishing training centers and schools (primary and secondary), including agriculture and commerce (Boahen, 1989:16).

According to Boahen, while these changes had a socioeconomic impact on African society by changing the lives of converts, they also led to polarization between the various religious denominations on the one hand and between Christian converts and the unconverted segment of the population on the other. The greatest impact of the spread of Christianity in Africa, as Boahen points out, is the "stratification of African societies into a relatively small educated Christian elite in the West and South of Africa and a large traditional and illiterate group" (ibid:17). It should be noted, however, that the propagation of Christianity and European education was driven by the contribution of the small number of educated Africans compared to the total native population before the beginning of the conquest (ibid:17-18), see also (Ayandele, 1981/1966; Fyle, 1981; Morsy, 1984).

The consequences of the rise of the educated elites were not limited to the stratification and polarization of African societies, but also had other far-reaching effects such as the spread of "Ethiopianism," a religious and political nationalism that emerged as a reaction to the "pseudo-scientific racism" of Europeans that asserted the superiority of the "white man" over the "black man." (Curtin et al., 1978) Curtin (1960:42) argues that the "golden age of racism was also the golden age of imperial idea." The main goal of this ideology, which emerged in West Africa between 1860 and 1888 and in South Africa from 1870, was to create religious institutions under African control that reflected African culture and tradition (Boahen, 1989:19). This movement became very powerful throughout Africa and played an important role in the struggle against colonial rule.

Another important effect of the rise of the educated African elites and the accompanying religious campaign was the intellectual revolution it sparked. Across Africa, the intellectual movements led to the emergence of an "African consciousness" and identity, as Boahen points

out, which he believes led to the emergence of the ideology of Pan-Africanism. The pioneers of the intellectual movements made it their mission to refute the racist views of Europeans of the time and to promote conservative African values in various academic writings. While acknowledging the developmental advances of Europeans, they also argued that Africans were capable of similar achievements if Europeans did not interfere with the natural development of the continent (Coleman, 1958: part III ch. 8; Horton, 1968: part II; Wilson, 2016/1969:94-104; Boahen, 1989:20-26).

4.4 Motivation of European colonial policy in SSA

During the colonial period in Africa, Europeans employed a variety of administrative strategies and policies. Depending on the circumstances, they chose either a direct or an indirect form of government and sometimes a mixture of both. Western powers pursued different colonial policies. For this reason, the fundamental question underlying this part of my inquiry is why Europeans chose extractive institutions for most African colonies, as opposed to the property rights institutions they helped establish in the 13 American colonies, New Zealand, Canada, and Australia (Acemoglu et al., 2001). I will examine the reasons behind this choice and the motivations behind European colonialism in Africa.

First, we must look at European colonialism holistically to understand its strategic and political motivations with respect to Africa. In general, the colonial movement was largely a private enterprise in its early days (Beer, 2010). It was a project endorsed and fully supported by the governments of the various competing powers, each responsible for administering the territories they occupied. The goal was not only economic, but also to create a civilization like that of the motherland, as described by George Louis Beer in the case of the British in the New World and Semakula Kiwanuka in the case of the French (see Kiwanuka, 2018/1970).

Beer notes that the colonies were obliged to finance their local public affairs and that independence gave them extensive powers of self-government for this reason, among others. As a result of these conditions, the colonists enjoyed considerable autonomy, which over time contributed to their quest for independence, while the Crown sought to limit their power. It is clear from Beer's account that this was a transactional relationship in which the British Crown offered security to the colonies in return for obedience. This reflects Greenville's commentary, in which he argues that: "Protection and obedience are reciprocal. Britain protects America; America is bound to yield obedience" (cited in Beer, 2010: Ch 1). Although the ownership of colonies had religious and territorial expansionist motives, they provided an important source of revenue for shareholders and the British Crown (Beer, 2010).

According to Beer, the loosening of the Crown's hold on the American colonies led to the emergence of a national identity and patriotism that no longer corresponded to the "white pride" that had motivated the invasion of the colonies in the first place. In the author's view, colonists in America no longer considered themselves English or American, but "Barbadians, Virginians," etc. In other words, the colonists were acting in their own interests and not those of the Crown, which led to hostilities between the two parties and resulted in the independence of the colonies (for more information, see Beer, 2010) and (Dickinson, 2010).

As I noted in the previous subsection and at the beginning of this subsection, the primary reason for colonial adventures was none other than what historians have called "gold, god, and glory." This is characterized by self-enrichment, religious zeal, and territorial expansion (Vardaman, 1964; Shepperson, 1973). Against this background, the following question arises: did the European powers colonize Africa for the same reasons? Based on my findings so far, I can assume that they did. However, a closer look at the feasibility of colonization in Africa reveals four important factors that made this significant episode in African historiography possible.

Accordingly, I consider the following factors as sufficient preconditions to the colonization of Africa:

- (i) The decolonization of the New World led to the loss of colonies and thus to a reduction of European territorial superiority and to regrettable losses of revenue.
- (ii) The suspension and abolition of the slave trade which accelerated the development of the commercial transition and thus provided both Europeans and Africans with an alternative and profitable trade opportunity to the slave trade, necessary for the colonial project.
- iii) The exploration of the interior of Africa after David Livingstone's remarkable voyage confirmed the new opportunities that Africa offered
- iv) The Industrial Revolution opened new economic opportunities through technology and gave Europeans a superior military and medical advantage to conquer Africa.

To my knowledge, there is no explicit account in the literature of the sufficient conditions that enabled the colonization of the continent as I have emphasized. Moreover, very little has been said about the influence of the Revolutionary War in North America and the collapse of the Spanish empire in Latin America and their impact on the decision of Europeans to colonize Africa. In line with Collins (2016), I refer to the former two events as the decolonization of the New World, which took place in the mid-18th century. Given the economic importance of

colonies, I argue that such a loss will lead to a loss of revenue. Conversely, the loss of colonies and the resulting loss of revenue will motivate the search for a new greenfield. It is worth noting that the abolition of slavery began shortly after the American War of Independence, which had a significant impact on the institution of slavery (MacLeod, 1975).

On the other side of the globe, more specifically in Africa, the end of the slave trade had far-reaching consequences. It resulted in the loss of overseas markets and thus revenue not only for European traders but also for local actors involved in the business (Hopkins, 2020). The dynamic this set-in motion was not only economic, but also social and political (Klein, 1972, 1992, Boahen, 1989; Ajayi, 1989). The institution of slavery, which for so long had served African elites not only as a means of exercising political power and control, but also as a means of financial leverage, now saw that power threatened because of the changing economic structure following its abolition (Eltis, 1987).

Against the backdrop of the "legitimate commerce" (Dike, 1956; Law, 2002; Frankema et al., 2018), I argue in line with Klein about the possibility that both Europeans and domestic actors benefited from the emerging economic model. Klein points out that the reason why the French and British kept their coastal colonies (Gorée and Bathurst, respectively) was not originally economic. He argues that the profitability of the peanut trade after the end of slavery changed this attitude and "created the economic basis for further involvement" of Europeans in the region (Klein, 1972:424).

The results of exploration missions were also an important factor in the colonial motivation in Africa. Prior to the abolition of the slave trade, European activities and possessions were mainly confined to the coastal regions of Africa, particularly in the South (South Africa), North (Algeria), and West (Senegal, Gambia, and Sierra Leone) Boahen (1989: 1). However, this alone does not reflect the entire story of European presence in Africa during this time. Prior to the mid and late 19th century, a period described in many historical accounts as the time when exploration of the interior of Africa really began, Mackenzie (1983:12) reminds us of the Portuguese presence in the Zambezi region for more than 70 years between 16th and 17th centuries, despite the continent's best known geo- and biogeographic challenges (Acemoglu et al., 2001; Frankema, 2021).

Mackenzie argues that despite the natural obstacles in Africa (disease, lack of navigable rivers, arid and desert areas, etc.), one of the main obstacles to the full penetration of Europeans into the interior of Africa was the resistance of Africans to the intrusion of foreigners into their land, dating back to the experience of the Portuguese in the 16th century. Beyond the African

coastline, there were several powerful and centralized states that resisted European intrusion into the interior and were victorious.

The same pattern of resistance continued into the late 19th century when the conquest of Africa was in full swing (Viti, 2017). However, unlike the 19th century when Europeans were militarily and technologically superior thanks to the Industrial Revolution, they failed in their first attempt to colonize the interior due to the resistance of Africans who had strong and well-organized military units at the time, as in the case of the Zulu, Ashanti, and Abyssinian (Mackenzie, 1983:12).

The main goal of European exploratory missions in the 19th century to the interior of Africa was to obtain economic, social, and political information about the "terra incognita" (Plesske, 2015). This standard was first set by Mungo Park's 1795 trip to the interior of the continent on behalf of the African Association to clarify the question of the Niger River and report on the city of Timbuktu (ibid.). The exploration of the Niger Valley led to intense competition between the French and British, in part because of the economic importance of the valley, which was known for its immense gold deposits and the city of Timbuktu (New World Encyclopedia, 2022; Encyclopedia.com, 2024). Similarly, the reason for Portuguese penetration in the interior of continent prior to the 19th century was to hijack the gold trade from the Arabs in Africa (Mackenzie, 1983:11).

Given these incentives, Mungo Park was commissioned by his benefactors primarily to (a) navigate the Niger and determine its beginning and end, (b) report on the major cities and their environs, especially the "famous" city of Timbuktu and the Haussa country (Schwartz, 2021:26; Pratt, 2003:70). Similarly, Gordon Laing and René Caillié were promised 10000 francs by the French Geographical Society if they ever reached the "fabled" city of Timbuktu (McLynn, 1992:32). However, despite the scientific motive and the yearning for evangelization, the economic imperative slowly but surely dominated all aspects of exploration activities. For example, Livingstone believed that the Christianization and "civilization" of Africans should be accompanied by "legitimate commerce" which he assumed would end the slave trade (Livingstone, 1905/2023: 19-81).

In the same spirit, Park was tasked by his patrons to explore the "culture, religion, language, and customs of the natives" and, more importantly, to investigate economic opportunities – "the regulation of property rights, government revenue (including taxes), agriculture, level of technology, and trade" Plesske (2015:5). Another important assignment of Park was to assess the defence capabilities and strength of indigenous governments and administrations (ibid:5).

Although Park's voyage to the interior of Africa did not fulfil the primary objectives – the Niger question and the visit to the fabled city –, it is nevertheless described as a trailblazer for all trading nations who wished to penetrate the interior and trade from the west to the east of Africa (cited in Pratt, 1992/2007:72).

Austin (2010:16) makes an interesting observation in his study that confirms my examination. He states: "The historiography is too complex to summarize here. But it is fair to say that, even if the motives for colonization were not exclusively economic (not least in the case of France and Germany), there were several links between the progress of industrialization in Europe and the fact that rival European powers ended up "courting" Africa so late in the history of European overseas empires" Industrialization, for example, lowered the costs of coercion and control, thereby creating incentives for (especially) the laggards in Europe to seek additional resources overseas (especially Portugal), while those dominating European trade with Africa had economic reasons to secure their position by extending it into annexation (Britain)."

The economic argument is very strong in the literature on colonial conquest. For example, Stuchtey (2011) argues that the reasons for colonialism in Africa were economically motivated, which is consistent with Gareth Austin's comments. Buhlan (2015) makes the same claim, emphasising that European colonialism was economically motivated from the outset, despite its political, cultural and psychological impulses. Furthermore, Austin (2015) discusses in detail how European traders and white settlers in Africa were motivated by the returns from trade and commercial agriculture, respectively. Jewsiewicki (1977) also highlights a similar motivation in the colonisation of the Belgian Congo. Contrastingly, however, Ndlovu-Gatsheni (2021) rejects the argument that colonialism in Africa was a moral evil with economic benefits.

Although there is no generally accepted consensus among historians as to the motivation that led to the rapid and comparatively easy occupation of a territory of over 30 million square kilometres and why the Africans were unable to prevent this phenomenon, the vast majority of historical accounts however, assume that the economic factor, as emphasized by those mentioned above, was an important driving force for the conquest. This view is also held by Uzoigwe (1985:19), who divides the historiography on the partition of Africa into four categories: the economic, psychological, diplomatic, and African dimensions.

The economic basis of European imperialism, which I will focus on in this case, is a well-documented topic, especially in the writings of John A. Hobson, V. I. Lenin, and Joseph A.

Schumpeter. The story can be simply summarized as follows: Europe accumulated so much capital and surplus production that it naturally came to have its "objectless disposition on the part of a state to unlimited forcible expansion," as Schumpeter (1955:6) describes. However, the origins of economic imperialism can be traced back to the German "Weltpolitik" of 1900, which, in the words of George Ledebour, is an "upsurge of all capitalism toward a policy of plunder which takes European and American capitalism into all parts of the world" (quoted in Uzoigwe, 1985:20).

Hobson (1902/2018:85) somewhat confirms the above statement, arguing that "overproduction, in the sense of an excessive manufacturing plant, and surplus capital, which could not find sound investments within the country, forced Great Britain, Germany, Holland, and France to place larger and larger portions of their economic resources outside the area of their present political domain, and then stimulate a policy of political expansion so as to take in the new areas", a condition he calls the "taproot" of European imperialism (p. 86). Hobson points out that non-economic forces are responsible for the emergence of imperialism, an argument strongly held by Marxist-Leninist authors. Despite the differences in views on this issue, however, there is a convincing argument that European imperialism was essentially driven by economic motives (Uzoigwe, 1985:21).

However, I argued at the beginning of this subsection about the slave trade and its far-reaching effects. First, it cannot be denied that the slave trade was a lucrative business before it was outlawed by the British (Ryden, 2001, 2009). It brought significant benefits to British businessmen and the Crown itself. Nevertheless, the debate over its abolition is divided. On one side are Clarksonian proponents (Clarkson, 2018; Griggs, 1936), who cite humanitarian reasons for the abolition of slavery, and on the other are "decline thesis" theorists, who attribute the end of the slave trade to economic reasons (Ryden, 2001). Coupland, for example, attributes the end of slavery to the ability of the "abolitionist saints" to place "public consciousness above the economic interests of the Crown" (cited in Ryden, 2001).

However, the humanitarian-based thesis is firmly rejected by William (2014) in his seminal work. He argues that Coupland, who evaluates the issue from the standpoint of morality and self-interest, abandons "scholarship" for "sentimentality," as do Clarkson's theorists who place "faith before reason" (cited in Ryden, 2001). Citing neoclassical studies such as Ragatz's, William contends that the decline of slavery was more related to the decline of the sugar economy as a result of overproduction. According to him, the economic system based on

slavery was already in decline in the years before the Industrial Revolution due to overproduction relative to demand. According to Williams, this situation was exacerbated by the American Revolution.

In line with Williams' thesis, Ryden (2009) argues that the reason for abolishing slavery was economic and had little to do with the humanitarian argument of Clarkson or Coupland. Ryden points to the impact of the American Revolutionary War on the sugar industry and the resulting shortage of supplies, particularly food for planters. Similarly, Williams highlights the financial impact of the revolutions by highlighting the number of slaves who starved to death due to food shortages. Ryden reports that 15000 slaves lost their lives in Jamaica due to famine.

Despite the constructive explanation, the decline thesis did not go unchallenged. A notable critique of this thesis is the study of Drescher. He argues that in the years leading up to the revolutionary upheavals in America, slavery was still a strong institution and, in economic terms, a very lucrative mode of production. He relies on price data from the Ragatz study and points to the increase in sugar production in the 50 years before the end of slavery, suggesting that the system was still profitable and thus supporting Clarkson's arguments. Ryden, on the other hand, gives a detailed account in favor of the 'decline theorist' by criticizing Drescher's quantitative interpretation of the financial viability of the sugar economy.

Notwithstanding the ideological divide between Clarksonians and Williams theorists, however, the abolition of slavery very specifically reflects the economic motivations of colonialism on the African continent. According to Austin (2015), the slave trade explains the productivity of African workers outside the continent. The abolition of this activity would inevitably lead to a loss of income for those with vested interests, which would explain the resistance to the abolition of slavery in the south of America. By the same logic, this loss must be compensated for somehow. As the Industrial Revolution progressed, Africa offered not only the opportunity to capture land and natural resources for growing European industry, but also cheap labor and a new market for industrial products. The "scramble" for Africa shows that the imperial powers did not let this opportunity go to waste.

Using a dual equilibrium model, Rogowski (2013) shows how elites substitute one mode of production for another at a critical moment – slave labor for free labor and vice versa. According to his study, such a turning point can lead to a transition from an economy based on slave labor to one based on free labor. When a slave economy reaches a certain inflection point and all other factors remain constant, it becomes less profitable when:

- ❖ The cost of keeping a slave increase. These are costs of importation (e.g., cheaper purchase or capture), monitoring (e.g., costs of preventing escape), and control (ensuring the productivity of slaves), see also (Lagerlöf, 2009).
- ❖ The intensity of labor required for the production process is low. In other words, the profitability of using slave labor instead of free labor depends on the labor needs of the production process. The greater the need for labor, the more attractive slavery is.
- ❖ There are variations in product prices or total factor productivity. It has been found that an upward movement in commodity prices favors slave labor, while a downward movement in prices favors free labor (Eltis et al., 2005). If both slave labor and free labor produce the same level of output, it would not make sense to employ free labor at the market price, so slave labor with no wage costs would be the predominant choice.
- ❖ slave labor is less productive than market wage labor, or free labor wages are neither very high nor very low. Based on these two arguments, Rogowski assumes that free labor is preferred when slave labor becomes inefficient due to sudden changes. When the land-labor ratio changes, the choice of labor to be used also changes, as shown by (Domar, 1970/2017), who, like Adam Smith, links slave labor to the level of the land-labor ratio.

After this detailed account of the historical background of colonialism and the motivation of Europeans to engage in the colonization of Africa, I will next examine the colonial experience in Africa under the control of both France and Britain and the resulting impact on the natives. I will discuss French colonization from the conquest to the administration of the territories as well as British colonization and its long-lasting effects on the natives. In addition, I will shed light on the reactions of Africans to the intrusion of Europeans into their land and the resistance they put up against foreign interference in the shaping of their society.

5. French and British colonization in Africa

For more than half a century, beginning in the late 19th century, European powers embarked on a political enterprise of economic exploitation and social and cultural distortion in Africa, far from its sovereign borders. At the forefront of the adventurers were France and Britain, who together controlled the majority of the colonies in Africa. With this in mind, I begin this section with an overview of French colonization in West and Equatorial Africa, as these areas make up the bulk of former French colonial territories in Africa.

5.1 French colonization (French West Africa, French Equatorial Africa, and the non-federated colonies)

Before the beginning of European territorial expansion in Africa, French influence was limited to a few trading posts in Algeria in the early 1500s, and in Senegal in the 1600s (Aldrich, 1996). France's colonial conquest of Africa began against a backdrop of local resistance to foreign intrusion with the invasion of Algeria in 1830 (Benlahcene, 2020). The annexation of the coastal cities of Algiers, Oran and Bône (Annaba) marked the beginning of French settlement. It was a slow, protracted and costly conquest (Galula, 2002) that wrested political and economic power from the natives, either by force (Welch, 2003) or by the stroke of a pen (Caniart, 2007).

In contrast to Algeria, Tunisia became a French protectorate in 1912 after prolonged internal unrest and a military intervention in May 1881 (Ikeda, 2015). Although it retained some autonomy at the beginning of the conquest, the administration of the country was under French supervision from 1882 (Tuncer, 2021). However, the conquest and pacification of Morocco was a long and arduous process (Porch, 2005). It was characterized by a constant struggle between the imperial powers who wanted to secure their commercial interests and territorial expansion. In 1934, despite local resistance, the colony was pacified due to economic hardship and political instability (Hoisington, 1995; Gershovich, 2004).

However, European settlement and Christian evangelism in SSA were insignificant before the expansion. The 'new imperialism' began with the invasion and occupation of inland Africa, with the notable exceptions of Ethiopia and Liberia (Aldrich 1996). Expansion in SSA was secured by brutal military force or by dubious treaties, usually concluded under duress or through intimidation of local chiefs (Caniart 2007). French colonial expansion in SSA began around 1880 and developed in two main phases: the conquest of French West Africa and Equatorial Africa. The first phase led to the creation of the Federation of West African Colonies (FWA) (Huillery, 2009), and the second to the conquest and creation of French Equatorial Africa (FEA) (Van den Linden, 2016). The following figure shows the imperial division of Africa in 1914.

5.1.1 French West Africa (AOF – Afrique Occidentale Française)

The FWA, commonly referred to as "Afrique Occidentale Française", was officially founded in 1895 and existed until independence in 1960. It consisted of eight colonial territories, namely Senegal, Côte d'Ivoire, Dahomey (now Benin), Niger, French Guinea (now Guinea Conakry), French Sudan (now Mali), Mauritania and Upper Volta (now Burkina Faso). However, the effective administration of the colonies did not begin until 1904. Despite the division of the

continent, the daily lives of the natives did not change significantly between 1900 and 1910, except in some coastal regions. Apart from hostile chiefs, the authority of local leaders remained untouched. Everything functioned as before the occupation, despite the strong military presence of the invading troops (Huillery, 2009).

However, as Figure 19 shows, the entire continent was divided like a pie between several imperial powers at the turn of 1914. These included: France, Great Britain, Germany, Spain, Italy, Belgium, Portugal and the Ottoman Empire. The figure shows that Great Britain and France were clearly the biggest winners, as they were able to conquer the most territories. However, as the figure shows, despite the Italian conquest attempt, Ethiopia remains the only exception in the history of conquests in SSA.

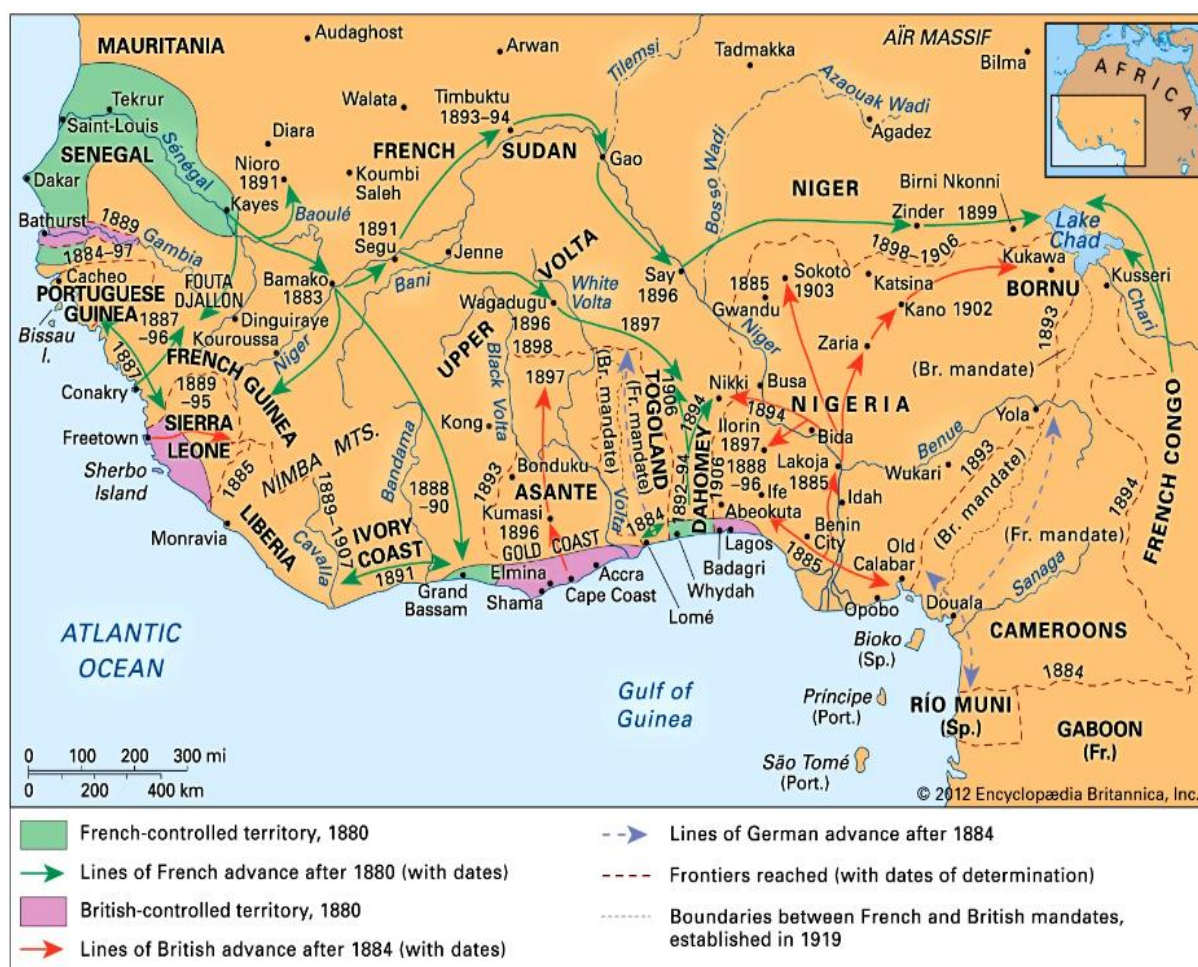
Figure 19: Map of the partition of Africa and the Ottoman Empire in 1914.



Source: Mackenzie, J. (2005, p.30).

The conquest and subjugation of the FWA can be divided into three phases (see Huillery, 2009:179). The first phase is the period of conquest through military expansion from 1854 to 1903 with the arrival of General Louis Faidherbe on the coast of Senegal. Military expansion consisted of the annexation of territories and the ratification of dubious treaties by local chiefs, often resulting in the cession of their ancestral territories. As shown in Figure 20, the first military column moved from Senegal towards Mali. A second moved towards Mauritania, followed by a third regiment towards Guinea.

Figure 20: Map of military expansion and division of West Africa



Source: Fage, J. D. & McCaskie, . T.C. (2020, October 6). western Africa. Encyclopedia Britannica. Under the section: Colonization (claim of territorial boundaries). <https://www.britannica.com/place/western-Africa>.

In the 1860s, another mission was launched from the south from Dahomey, and in the 1880s, when most of the expansion took place. The last military invasion from the southeast of French Sudan and from the area around Lake Chad was authorized in the 1890s. These groups were joined by a force that moved north from the Dahomey coast. From 1880 to the end of the 1890s, military expansion had spread from Côte d'Ivoire (Ivory Coast) to Dahomey, Haute Volta and

Niger (see Huillery, 2009 and Harris, 1911). By 1895, the entire expansion in French West Africa was complete, leading to the creation of the Colonial Federation of West Africa, but effective governance was not achieved until 1904, as I mentioned earlier (Huillery, 2009).

However, the most important and violent part after the military conquest was the pacification of the occupied territories (Islam, 2015; Huillery, 2009), which lasted from 1854 to 1929. It should be noted that the conquest was immediately followed by pacification to ensure the consolidation of the conquered territories, which is why the two periods overlapped. Pacification consisted of suppressing native uprisings after the conquest, usually using military force to prevent French citizens and interests from being harmed. This enabled the gradual establishment of a French civil administration (ibid.). One of the most violent episodes of French pacification occurred in Algeria at the beginning of the colonial conquest (Islam, 2015).

However, the actual occupation that placed West Africa under colonial rule according to the principles of the Berlin Conference took place between 1904 and 1960 (Uzoigwe, 1984:17). During this period, French civil administration was fully established and colonial rule was enforced in all territories conquered and pacified by France until independence. According to (Huillery, 2009:180), administrative occupation was fully effective in most areas of French West Africa from 1910 to 1960, when most French colonies became independent.

5.1.2 French Equatorial Africa (AEF Afrique Équatoriale Française)

The conquest of "Afrique Équatoriale Française" (AEF) - French Equatorial Africa (FEA) - began with the exploratory missions of Savorgnan de Brazza in the 1870s. The conquest of Equatorial Africa is characterized by the establishment of protectorates through treaties (Van den Linden, 2016; Coquery-Vidrovitch, 2017, 1985). The FEA consists of territories in present-day Gabon, the Republic of Congo, the Central African Republic, Chad and Cameroon. The FEA was founded in 1910 as the second colonial federation of the French Empire and covers an area of 2,687,190 square miles stretching from the lower Congo to Lake Chad (Van den Linden, 2016).

As land occupation became increasingly difficult due to resistance, the acquisition of territories in Equatorial Africa took place through cession and protection treaties (Hertslet, 2013; de Card, 1897; Van den Linden 2016). One of the characteristics of the FEA conquest is the deceptive intentions of the French, which they managed to disguise in a language that was foreign to the other party (the indigenous chiefs). European territorial expansion in Africa was supported from the outset by the ideology of "terra nullius", "coined at the beginning of the Berlin Conference

by Joerg Fisch (Foster et al., 1988), which in Latin simply means "land that belongs to no one" (see also Benton & Straumann, 2010).

In the eyes of the Europeans, Africa was inhabited by "uncivilized" people and was therefore ownerless because it did not belong to any subject of international law, namely a European state. Against this background, it was okay to occupy the place (Hu, 2016). Unfortunately, the French, like other imperial powers, quickly realized that occupation was easier to formulate than to implement (Van den Linden, 2016). Therefore, in some cases, as in West Africa and particularly through bilateral treaties in Equatorial Africa, occupation led to the use of military force. The irony of the ownerless argument, however, is that it makes no sense to enter into a treaty with someone over a territory that is considered "terra nullius". The dissonance of the argument is too obvious. It was just a pretext to justify an unjustified, immoral and above all illegal invasion of African territories.

Despite de Brazza's significant contribution to the conquest of Equatorial Africa, the economic exploitation of the colonies was entrusted to Emile Gentil. Unlike de Brazza, who was somewhat more mindful of native interests (ibid.), the new "sheriff in town" wasted no time in forcibly subjugating the natives (Dussaud, 1932). The acquisition of the region was not without controversy, however. A territorial dispute between France and Germany was settled in 1894. As a result of the German defeat in World War I, Cameroon and Togoland were ceded to France and Great Britain as League of Nations mandated territories under the Treaty of Versailles (Van den Linden 2016; Cowan, 1953, Crozier, 1979).

However, after the dissolution of the League of Nations, the two former German colonies were transferred back to France and Great Britain under the United Nations trusteeship system (Crozier, 1979). A similar dispute with the British took place at Fashoda in 1898 (Cowan, 1953) and was settled with the signing of the Anglo-French Treaty, which led to the demarcation of French territories in Equatorial Africa and the British Sudan (van den Linden, 2016). In late 1910 and early 1911, the colony of Oubangui-Chari in southern Chad was added to the French possessions in Equatorial Africa.

5.1.3 The pacification of the French colonies and the resistance of the natives

In contrast to the rapid military expansion that brought 8,653,000 square miles of territory under European control between 1878 and 1914, due in large part to the conquerors' superior military technology, the consolidation of the acquired territories presented a very different challenge (Finch & Finch, 2013). The change in strategy in local resistance against European enemies

from open combat to guerrilla warfare, particularly in terrain foreign to the imperial forces, made the consolidation of spoils an entirely new experience.

This is reflected in the words of several military leaders who describe the wars of pacification as an unprecedented colonial war (ibid.). Pacification consisted of making the colonies manageable, which was no easy task given the continued resistance of the natives to the foreign military presence and political rules. This process of subjugating the natives to European control, i.e. overcoming the natives through military force to make their territories administrable, is referred to as the period of pacification in colonial Africa. It is "the act or process of obtaining the cooperation or surrender of a population through military force or other forms of coercion" (cited in Finch & Finch, 2013).

However, the pacification of Africa was not achieved peacefully. It has a long history of violence by the conquerors on the one hand and stubborn resistance by the natives on the other (Finch, & Finch 2013; Kodila-Tedika et al., 2016). For example, Cecil Rhodes and Belgian King Leopold II epitomize the violence of the pacification period in Africa, which was characterized by brutal violence against the natives and plunder of resources in the relatively short but bloody history of colonization. Before the Ndebele resistance in 1893, Rhodes said, "If you do strike, strike hard"⁵

The history of colonial violence during the pacification period is well documented. Barron, et al. (2019) reiterate the connection between violence and pacification in their study. Neocleous (2011) describes the term as "a form of police violence that secures the insecurity of the capitalist order." Conklin (1998) refers to the process as "state-sanctioned violence" through which despicable and violent measures were used to suppress African resistance and force their cooperation. The literature is replete with evidence of colonial powers' brutal response to indigenous resistance to their rules (Viti, 2017; Kalman, 2010; Conklin, 1998).

Viti argues, for example, that the conquest of the Ivory Coast is one of the bloodiest and longest in the history of French pacification of West Africa. In his article, he succinctly describes, among other things, the massacre of the villages of Diapé and Makoundié, in which old people, women and children were slaughtered and villages burned down or heavily fined for allegedly supporting the abbey's uprising against the colonial troops. A similar uprising against the abuses of colonial rule also took place in Equatorial Africa and ended with the mass killing of thousands of dissidents from various ethnic groups (Coquery-Vidrovitch, 1983).

⁵ <https://zimfieldguide.com/masvingo/build-1893-matabele-war>

The history of colonial resistance was twofold. First, against European territorial incursion (territorial conquest), which was led at the state level by African leaders such as Almamy Samori Touré and King Béhanzin of Dahomey (Viti, 2017), and second, against colonial rule after the conquest and pacification of the colonies (Frankema, 2011, 2012; Coquery-Vidrovitch, 1983). Coquery-Vidrovitch describes two types of African resistance to European rule, in addition to precolonial, state-led resistance. The second type, which she calls "resistance primaire," can be characterized as populist, rural, and spontaneous resistance, usually resulting from peasant grievances. The third type, which she calls "modern resistance," is related to trade union movements, political, national and nationalist resistance, and liberation movements.

According to Coquery-Vidrovitch, the precolonial resistance that emerged in the last decades of the 19th century was more political in nature and state-led. It was primarily motivated by resistance to Western invasion of Africa. For example, Mandinka resistance to colonial invasion led by Almamy Samori Touré lasted 18 years until his exile on the island of Gabon, where he died (Oghenerioborue, 2019). Almamy's main criticisms included religious differences, French territorial expansion that crossed the northern border of his empire (Côte d'Ivoire), French economic interests that affected local trade, the undermining of his administrative and judicial authority, and his complaint about French disregard for African institutions and culture (ibid.; Person, 1975).

In contrast to the well-organized, state-directed resistance, the second type of hostility to French rule described by Coquery-Vidrovitch stems from spontaneous mass uprisings, most of which were directed against some of the direct colonial rule such as taxation, forced recruitment, and cultural assimilation, France's so-called "mission civilisatrice." It is well documented that the burden of French colonial taxation policies in the colonies led to various forms of resistance—open refusal, migration that usually led to social relegation, or simply flight to avoid paying taxes, especially the "capitation tax," or the enforcement of "prestation" (Sow, 2019).

Native African resistance to colonial taxation policies is not only a matter of financial burden, but also a cultural and religious issue. Most colonized people, especially in the Muslim-majority parts of French territories (e.g., West Africa), do not view the European invader as a legitimate authority. They wonder why they should pay the "kaafir"⁶ a penny or bow to his assimilation policies (Chauvaud, 2007, p. 213-226). At the beginning of the pacification process in Africa,

⁶ Unbeliever in Islamic Belief.

the French viewed the influence of Islam as a threat to their authority and an obstacle to social progress that had to be fought with military force (Zambakari, 2021).

According to Zambakari's account, in the early 20th century the French were forced to change their anti-Muslim policy and establish a more cooperative relationship on the recommendation of Depont and Coppolani, who urged the administration to "work with the Muslim brotherhoods instead of fighting them" (cited in Harrison, 1985: 67). A similar recommendation was made by the French colonial official Maurice Delafosse, who urged the French to cooperate with African institutions rather than subjugate them by force (cited in Zambakari, 2021:9). According to Harrison, "discreet official sponsorship of education together with subsidies for the construction of lodges for the brotherhoods were favored as methods of gaining future political control. By faithfully pursuing such policies France would do much to remove the threat of pan-Islamic rebellion and would be assured of a broad sweep of allies rather than having to rely on a handful of proven collaborators" (p.67). The next subsection, however, deals with the British colonial experience and its impact on Africans.

5.2 British colonization

The territorial interest of the British in Africa was limited to a few coastal cities before their economic interest shifted to the southern part of the continent. The conquest of the Cape Colony from the Dutch in 1806 (Britannica, 2021) marked the beginning of British territorial expansion inland of Africa. However, the occupation of the Gold Coast slave trading posts in 1621, James Island on the Gambia River in 1661, and the purchase of the coastal territory of Sierra Leone in 1787 marked the beginning of early British settlement (Sébille-Lopez, 2004). Although Britain increased its territorial gains by annexing several territories, rapid imperial expansion did not begin until after the Berlin Conference of 1884.

British colonial interest in Africa developed somewhat later in southern Africa with the first military invasion and occupation of the colony of Cape Town between 1795 and 1903 (Pavlich, 2011), the Nile Valley (Lee, 2011), and the invasion of North and East Africa. British forces invaded Egypt in 1882 and annexed British Somaliland (present-day Somalia) in 1884 (Britannica, 2010). After conquering Kenya in 1886 (Maxon, 2002), Britain invaded Rhodesia between 1889 and 1892 on the recommendation of Cecil Rhodes (Rotberg, 1988) to prevent other adversaries from gaining a first-mover advantage in the mineral-rich south (Keppel-Jones, 1983).

In 1895 Uganda was granted protectorate status by Her Majesty, and the disputes over Fashoda was finally settled in 1898 with the signing of the Anglo-Egyptian Condominium by Britain in 1899. In addition to Sierra Leone and Gambia, the British sphere of influence extended into West Africa in 1874 to include the Gold Coast, present-day Ghana (Bourret, 1948, 1949), and further with the annexation of Nigeria and the acquisition of southern Cameroon after the first World War. In East Africa, Britain added Tanzania, the protectorates of Nyassaland, Bechuanaland, Swaziland, and Basutoland to its southern territories in the first decade of the 20th century. After the conquest, however, Britain, like other imperial powers, faced the task of pacifying the acquired territories, an episode I examine in the next subsection.

5.2.1 The pacification of British colonies and the resistance of the natives

The pacification of the British territories met with fierce resistance from the natives. Like other imperial powers, the British used disproportionate and extreme force to bring their colonies under administrative control. The first resistance to the British in Africa was organized by the Boers, who resisted British encroachment into the resource-rich Transvaal and Orange Free State between 1880 and 1881. After a decisive defeat, the British regained control of the southern territories after defeating the Boers in their second conflict (Pretorius, 2000).

Although Britain is known for adopting the protectorate system of territorial conquest, this did not stop the natives from rebelling against their administrative rule. For example, Ikime (1973) reports an attack by the "TIV" (Munshi) on British troops in response to British encroachment on their ancestral land. The main reason for the conflict was the deployment of a "telegraph party," a group of professionals supported by a military contingent, tasked with building a telegraph line across Tivoid land, which the natives saw as a clear violation and therefore responded by attacking the telegraph party.

According to Ikime, the attack was unexpected and bloody and resulted in the death of three soldiers and nine wounded, forcing the British commander to retreat with the rest of his troops. The counter-attack was fierce and swift. Lord Lugard sent an additional contingent with two Maxim guns. The result was the destruction of the "TIV" villages and their livelihoods by the British troops. However, we should not forget that the resistance of the "TIV" to British rule in northern Nigeria was not only political, but also economic and cultural. A similar example can be found in the study by Kitchen (2015), in which the author highlights the violence of the British forces against urban resistance and the growing nationalist movements during the pacification of Egypt.

One of the features of colonization in general and the British pacification process in Africa in particular is the use of local agency. Human actors played a crucial role in the colonization, pacification, and exploitation of Africans (Youé & Stapleton, 2001). From explorers to missionaries to local stakeholders, imperial powers relied heavily on these actors to conquer, pacify, and exploit their colonies. Most importantly, they helped enforce, implement, and maintain colonial rules. My observation is consistent with Buhlan (2015), who also emphasizes that local actors were the most important factor in the colonial process.

Turyahikayo-Rugyema's (1976) description of Bakiga resistance to British taxation, forced labor, and their opposition to the Baganda authority is a good example of the challenges of British pacification and the role of local agency. Similarly, Kabwegyere (1972) reports on native rebellion against British rule and the use of local agents. Youé & Stapleton (2001) show how human agencies supported the colonial process. However, they also show the vulnerability of colonial power. Amone & Muura (2014) argue that British colonization is the origin of the formation of the Acholi ethnic group in Uganda.

According to Amone and Muura, the British colonial administration preferred the integration of the Acholi ethnic group into the colonial army over other groups because they were small, not centralized, and because they assumed they would not rebel against their authority. This explains why the colonial administration was reluctant to accept large and organized ethnic groups into the army. Against this backdrop, the British administration did not encourage the recruitment of the Kikuyu in Kenya, the Ndebele in Southern Rhodesia, and the Ashanti in Ghana into colonial law enforcement. The British administration felt that the inclusion of such a large and centralized ethnic group in the armed forces, which would have access to weapons, could be detrimental to British rule in the event of a rebellion.

Resistance to foreign domination and violence are closely related. Resistance was directed not only against the imposition of colonial rule, but also against abuses by colonial administrators and those who collaborated with them. For example, Makgala (2004) documents corruption in the Bechuanaland Protectorate by showing how local tax collectors (chiefs) not only embezzled tax revenues but also forced residents to pay additional taxes. He shows how the "Dikgosi" collected tributes from taxpayers in addition to the highly controversial hut tax. Gartrell (1983) comes to a similar conclusion in his description of Ganda behavior in Uganda.

Despite the involvement of the native polities in British colonial rule, the use of force under British rule was not insignificant, contrary to popular belief. "Help us sue the British government for torture", highlights Harvard historian Caroline Elkins legal efforts to draw

attention to the violence perpetrated by Victorian forces during Kenya's colonial occupation (Guardian, 2016). In 2005, Elkins uncovered the horrors of British rule during the Mau Mau uprising in her article *British Gulag* (Elkins, 2005). The article describes the colonial administration's efforts to suppress the anti-colonial Mau Mau uprising.

According to the Guardian, 1.5 million Africans were held in a Guantanamo-style prison camp in addition to the "villagization" of the Mau Mau natives (Carruthers, 2005). The prisoners were subjected to all kind human rights violations and crimes against humanity simply for rejecting the unlawful British rule over them. Among other things, the natives resisted the eviction of Kikuyu tenants from white settler farms, the appropriation of lands by white settlers, poverty, the lack of adequate political representation for the natives, and forced labor.

According to Newsinger (1981:160), in 1948 more than 1.25 million Kikuyu were restricted to 2000 square miles of land ownership in their ancestral home, while 30000 white settlers occupied 12000 square miles of farmland. This statistic shows that 2.5 white settlers occupy one square mile of farmland and 625 Africans occupy one square mile of farmland. This fact alone justifies native resistance not only to the colonial administration but also to the attitude of Rhodesian settlers and Victorian foreigners. The status quo led to social division and civil war due to the collaboration of some Africans (Ibid.).

The injustice and violence of settler colonialism was not limited to the Kikuyu uprising and the vicious enterprise of Cecil Rhodes in the land that once bore his name. Everywhere Europeans settled, the outcome was similar, and there is ample evidence of this in historical scholarship (Wolfe, 2006; Wagner, 2018; Bush, 2002). In an examination of the relationship between settler colonialism and genocide, Wolfe argues that while genocide is a recurring feature of settler colonialism, it is not an immutable feature, and that a distinction should be made between the two. Wolfe argues that European settler colonialism is eliminatory because its goal is the subjugation and elimination of the other race. It is ironic that the current discourse on "replacement theory" in the USA is taken up primarily by the white majority, considering that they participated in the violent "replacement" of indigenous peoples during the colonization of the Americas.

My observation of the settler policy under British colonial rule in particular and colonialism in general is consistent with the assessment of Patrick Wolfe and provides a point of demarcation between this dissertation and Acemoglu's "reversal theory." While I recognize that European colonialism was associated with the introduction of property rights institutions (Acemoglu et al., 2002) and seemingly led to prosperity in certain former colonies, access to the benefits of

these institutions was asymmetrical, discriminatory, and race-based and applied only to Europeans. This was the case in the Americas (Diamond, 1997; Wolfe, 2006; Greer; 2019) and likewise in settler colonies in the British possessions and wherever Europeans settled in Africa (Wolfe, 2006). Unfortunately, full "replacement" did not work in Africa as it did in the Americas. The closest thing to that happening was the apartheid system in South Africa, which ended in the 1990s.

The use of heinous violence to suppress the revendication of Africans was not a spontaneous reaction to a sudden uprising against injustice and foreign domination. Imperial powers believed that in order to "tame" a "savage and "inferior" race, exemplary cruelty had to be employed, a trait common to all imperial powers, as Wolfe documents. Force was used not only to pacify and subjugate the natives, but also to change the economic, social, and cultural organization of their societies by adopting and implementing European policies.

However, according to Curtin et al. (1978), the European territorial conquest of Africa shows a lack of planning prior to the takeover of the territories. Curtin and his colleagues argue in light of increasing competition between imperial powers that most acquisitions during the period of conquest were made only to prevent another competitor from occupying a territory. Although Europeans had specific plans for exploiting natural resources and building infrastructure to transport export goods, the authors argue that "long-term plans for economic and social or political change were very rare" (p. 473). In the following subsection, however, I will expand the discussion to include European policies in order to understand the extent of their impact on the lives and institutions of African people.

5.3 The British versus French colonial policy in Sub-Saharan Africa

I divide European colonial policy into two categories: policy during the colonial conquest and policy after the takeover of the territory. The French policy of conquest in Africa can be divided into two types: The military conquest of most French possessions in West Africa (Huillery, 2009) and the policy of cession and protectorate in Equatorial Africa (Van den Linden, 2016). However, I have already discussed French conquest policy in West and Equatorial Africa in more detail in subsections 5.1.1 and 5.1.2. In contrast to the French, the British pursued a policy of protectorates to acquire most of their colonies in Africa (Booth, 1969).

The Europeans regarded African societies as "backward" (ibid.), and conquest was in their eyes not only a means of preventing intra-African conflicts, but also of suppressing indigenous customs that were considered inferior and of profiting economically from the colonies. This

endeavor met with fierce resistance from the Africans (ibid.). Guided by the pseudo-scientific racism that had characterized European policies in the New World colonies (Curtin et al., 1978), Europeans introduced their own institutions (legal, political, economic and cultural) in the colonies to govern their colonial subjects directly or indirectly.

Direct administration meant that colonial rule was exercised by European officials, and indirect administration with the help of native authorities. The former, attributed to the French (Mueller-Crepon, 2020), dismantled and replaced traditional patterns of political organization, while the latter, largely adopted by the British, maintained the existing political structure (Blanton et al., 2001). Against this background, Britain and France pursued different colonial policies in their colonies after the conquest. I begin this discussion with French colonial policy, followed by British colonial policy in SSA.

5.3.1. French colonial policy in Africa

French colonial policy developed from an "assimilation" to an "association" policy (Labouret, 1940). The policy of assimilation goes back to the theory of the "bon sauvage," which is controversially attributed to Rousseau. Although the meaning of the term has changed over time (Lovejoy, 1923), the idea was used after the conquest of the "New World" to deprive the natives of all rights and justify European domination (Borsboom, 1988). The French believed that their cultural values that emerged from the Revolution of 1789 and promoted French "civilization" – the cultural superiority of France, the idea of equality, fraternity and liberty – could be extended to the rest of the world, especially to their colonies, regardless of creed, race, color or geographical location. This idea, in their view, would facilitate the integration of French subjects into "l'empire Français" through administrative centralization and cultural assimilation, turning them into "civilized peoples", into "Frenchmen" (Clapham, 1985; Mills, 2011).

In Africa, France first tested this idea in the late 18th and mid-19th centuries in the four communes of the colony of Senegal: Dakar, Saint Louis, Rufisque and Gorée, which led to serious political disputes between the republicans and the monarchists in France (Lewis, 1995), resulting in the temporary abolition of this policy until its reintroduction in 1945. Although the inhabitants of the four communes were granted French citizenship, this policy failed because they rejected the French "Code civil" on cultural grounds (Diouf, 1998). Nevertheless, it led to the development of a "strong cultural and political hybridization" and the emergence of a new civilization that differed from the assimilation results that the French had expected in the four communes, as Diouf points out (p. abstract).

As part of the policy of assimilation, laws were passed in the French parliament without consulting the natives, despite the unique political representation of the four communes in the French parliament before 1945 (Diouf, 1998; Mills, 2011). Inspired by the idea of the so-called "mission civilisatrice", French assimilation policies contributed to the destruction of indigenous culture, economy, political structure and legal system by replacing them with French institutions considered superior (Clapham, 1985; Dimier, 1998, 2004). According to Clapham, however, the ideal of European cultural superiority was not necessarily linked to race (p. 22).

However, the term "assimilation" is interpreted differently in French colonial history, as Lewis (1962:131) notes. According to Lewis, for some it means the "dominant and consistent characteristic" of French colonial policy throughout the colonial period, while for others it refers to something like the "policy of association" that France pursued in the early 20th century. However, many understand it to mean the incorporation of the colonies into the imperial mother country as opposed to the "autonomy" of the territories, i.e. self-government.

Others define the term in the context of parliamentary representation in the "metropole", while some associate the term "assimilation" with the "civilization" of non-Europeans and, to a certain extent, with the acceptance of racial equality. In a cultural context, "assimilation" meant the spread of the French language in the overseas colonies. For others, however, it also meant "customs assimilation" and referred to the implementation of French customs policy. To summarize, French assimilation policy in Africa took three forms: political, economic and socio-cultural.

Political assimilation is characterized by the direct administration of the colony, as shown in Figure 21 (see Huillery, 2009 or see Recettes et dépenses des colonies in the Gallica Digital Library for information on the composition of the figure). At the top of the pyramid is the Minister for the French Overseas Colonies. The Minister resides in France, heads the Ministry for the French Overseas Territories and is appointed by the French President. The Minister appoints high-ranking officials of the overseas territories, issues decrees and receives regular briefings on the colonies from senior officials (Governors General).

The Minister of the Colonies, also known as "Le ministre des colonies", approves all major projects such the construction of infrastructures namely roads and bridges. The colony minister has the power to grants citizenship to any subjects who meet the requirements. He is accountable to the French parliament and has the difficult task of mediating between the expectations of the president, who appoints him, his colleagues and the powerful colonial societies whose interests he has to take into consideration.

Figure 21: Structure of French colonial Administration



Source: Author's work based on French primary sources documents of the French Recettes et Dépenses des colonies Française. Gallica digital library and Huillery (2009).

The Governor General is the second highest official in the colonial administration, reporting to and appointed by the Minister of the Colonies. He lives in the colony, is therefore the direct link to France and is responsible for the administration of the colony. He oversees the preparation of the budget and is responsible for the defense and security of the colonial federations (AOF and AEF) as well as their social and economic development. The Governor General is assisted by a Lieutenant Governor who ensures that the colonies' budget is completed expeditiously before approval. He appoints native chiefs on the recommendation of the district officer (commandant de cercle) and manage the civil service (i.e. the transfer of employees) and public order in the colonies. He has the right to mercy and the power to exempt people from forced labor ("indigénat").

The lowest rank French official in the pyramid is the "commandant de cercle", but he is "le vrai chef de l'empire" – the real "chief of the empire" – as Delavignette (1939: title) said. He collects taxes, counts the population of the district and draws up the map of the district with the help of the local chief. He supervises the running of the European elementary schools and the Koranic schools, oversees public works (buildings, roads, bridges, etc.), hunts down criminals and exercises jurisdiction in accordance with French laws (Huillery, 2009; Cohen, 1971; Cohen et al., 1973). He was responsible for the day-to-day running of the colony.

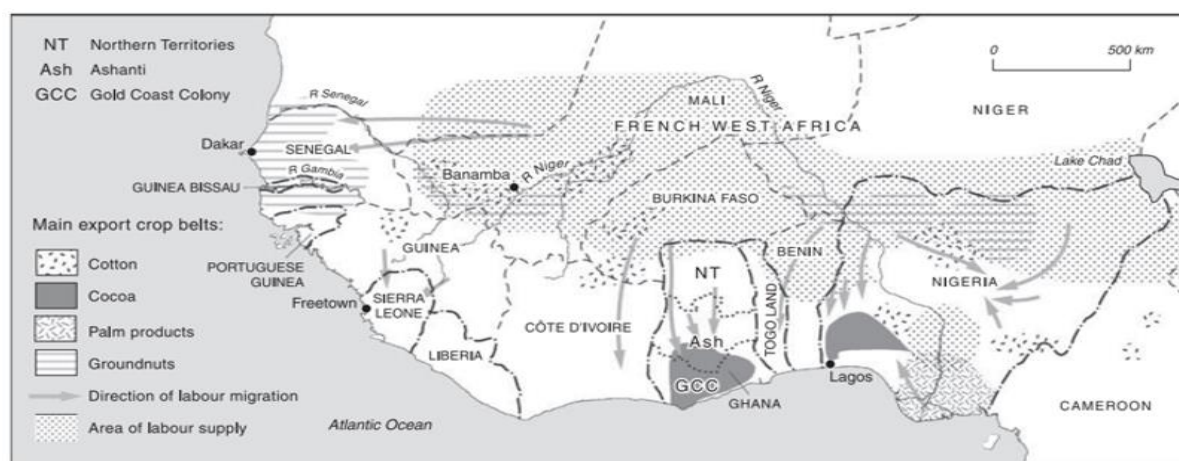
In contrast to the district officer in the British colonies, who has primarily an advisory function, the "commandant de cercle" has an enormous amount of power. According to William B. Cohen, the centralized, pyramidal structure of the French colonial administration should not deceive us. He argues that high-ranking officials such as the governors had no control over the colony, which he attributes to communication and geographic problems between the governors, who live in the capital, Dakar, and the administrators, who are based in the districts.

Moreover, Cohen emphasizes that "colonial ministers were unable to be well informed and determine intelligent policy because of their limited capacity for initiative and the shape of the administrative structures themselves" (cited in Ramognino, 2001: 93). He also claims that "despite their personal qualities, the governors (general) had difficulty in closely supervising the work of the governors under his authority, and even more so that of the district commanders. Most of the time the governor general is responsible for coordinating the administration of the colonies that make up the Federation and acts as an intermediary between the governors under him and the Colonial Office. (ibid: 95) ". For Ramognino, who also considers the French district officials as "des véritables seigneurs", their excessive exercise of power underlines the weakness of the French central power and its distance from the peripheries (districts).

Economic assimilation reflects conflicts over natural resources arising from competition. It partly explains why the economies of former SSA colonies are still dominated by commodity exports (Sachs & Warner, 1995), weak states (Mehlum et al., 2006) and conflicts over natural resources (Collier & Hoeffler, 1998). French economic assimilation policies are consistent with one of the arguments I make in this dissertation, namely that European colonization largely explains the "upstream" characteristics of economies in SSA and the "downstream" characteristics of Western economies (Rodney, 1972/2018). Evidence for this statement can be found in the economic policies of two of the most famous proponents of European colonization, Jules Ferry and Lord Frederick Lugard.

Although both promoted different forms of colonial administration, the central tenets of their economic policies were that the colonies should become important suppliers of raw materials for the emerging European industry (Austin, 2009; Rodney, 1972/2018). Given the increase in production capacity of Western nations as a result of the Industrial Revolution (Parvanova, 2017), Europeans not only needed raw materials to meet the demand of their industries, but also a market for the manufactured products (Boahen, 1985). The following figure illustrates the transformation of West Africa into an agricultural economy (export economy) after the abolition of the slave trade.

Figure 22: Area of cultivation of export-bound crops



Source: Austin, G. (2009). Note from Austin p. 4: "West Africa in 1914. The political boundaries shown are as of 1914; the bolder lines distinguish territories belonging to different colonizers, while the less bold lines distinguish different colonies of the same power. The countries have been given their postcolonial names except for the German colony of Togoland, whose territory today comprises the republic of Togo and part of Ghana. Guinea-Bissau was Portuguese. The Gambia, Sierra Leone, Ghana, and Nigeria were British colonies. The others were French."

In line with Albert Sarraut's "mise en valeur des colonies Française", French economic assimilation policy encouraged or forced the production of export crops and mineral resources to supply French industry (Mills, 2011; Sarraut, 1922). According to Sarraut, the French administration in both federations (AOF and AEF) urged the colonies to increase the production of export goods such as peanuts, timber, palm oil, palm kernels, cotton, cocoa and coffee and to build infrastructure (e.g. railroads) to ensure the transportation of these goods - a situation that the economic historian refers to as "le pacte colonial" (the colonial pact).

The French policy of economic assimilation led to high taxes being imposed on the working population in order to increase the colonial state's revenues. In FEA, for example, where the colonies were less profitable and largely located inland without access to a seaport, the burden of direct taxation was very high. In addition, the French colonies generally received very little financial support from the French parliament and were not allowed to collect customs revenue, even though the colonies were the main suppliers of raw materials to French industry. The administration also granted "concessions" to private companies, which gave them extensive powers to exploit certain natural resources on the assigned land and helped them meet their labor needs.

Socio-cultural assimilation was, according to the literature, the most damaging of the three forms of assimilation policy, as it was directed against the indigenous belief system and its long-established institutions (Clapham, 1985; Blanton et al., 2001). It is characterized by the replacement of African culture, which had been influenced by Islam centuries earlier (Diop, 1987), with a foreign (European) value system through the introduction of Christianity and the European education system (Frankema, 2012). Although European education is sometimes credited with some success in Africa (Klerman et al., 2008), its main aim was to acculturate and pacify the natives (Ricker, 2017; Nwanosike & Onyije, 2011).

Even if the European missionaries and other actors in the colonial enterprise pursued different goals, they were united by a common characteristic: taking advantage of the indigenous population (Mbuwayesango, 2018). Missionaries contributed to the acculturation of Africans (Viera, 2007) and the undermining of their legal system (Rodney, 1966/1982:331-372; Robert & Mann; 1991). Some accused them of being in cahoots with colonial administrators to impose Western rule (Mbuwayesango, 2018). However, despite the contradictory argument on the influence of Christianity and missionaries in Africa, Jedwab et al. (2021) find little to no evidence of a long-term link between Western religions, particularly Christianity, and current economic growth in Ghana. However, Jedwab and his colleagues conclude that Christian culture had an eroding effect on the African belief system and tribal leadership.

The second aspect of French colonial policy in Africa, however, evolved from an attitude of assimilation to one of association. At the beginning of the First World War, several theorists, government officials and African activists began to criticize the effectiveness and feasibility of the highly praised French policy of equality and freedom (Labouret, 1940). As quoted in Labouret's article, Rabah Zenati, who had previously advocated "assimilation through citizenship", argues strongly against this policy in his article "Le problème algérien vu par un indigène" (The Algerian problem from the point of view of an indigenous person). Rabah complains that the policy of assimilation places absolute power in the hands of the Europeans and their collaborators and points to the alienation between the elites and the masses.

In contrast to "assimilation", the concept of "association" is based on the principle that the relationship between the colonial power and the indigenous population should be based on cooperation and not on a "utopian project", as described by the Algerian politician and nationalist Ahmed Boumendjel (quoted in Belmessous, 2013). In contrast to the politics of equality and freedom, the idea of "association" speaks out against the transformation of the so-called "backward" African into an "improved European", a Frenchman. It proposes a

relationship similar to the British model of indirect rule that respects the political and cultural values of Africans, including African institutions (Crowder, 1964). The architects of this policy believed that it should be an economic win-win situation and not a one-sided benefit for the conquerors as the assimilation policy allowed.

Unfortunately, the reality was quite different, as shown in Figure 21, Africans were at the bottom of the pyramid in the French colonial administration and had neither decision-making power nor the ability to legislate. The French administrative territories were divided into districts commonly referred to as "cercles" without any cultural consideration (Michalopoulos Elias Papaioannou, 2012), leaving tribal leaders at the mercy of the colonial administrators (Herbst, 2000). They could be deposed at any time, regardless of their traditional status (Mills, 2011). According to Mills, no members of the Dahomey royal family were included in the colonial administration after the dissolution of the kingdom. This is not surprising given King Béhanzin's⁷ opposition to colonial infiltration in Africa (Viti, 2017).

One of the most important features of the policy of "association" in the French colonies is the emergence of the African legal system, the "justice indigène," immediately after the introduction of advisory councils. During this period, two legal institutions prevailed in the colonies: the French legal system and indigenous customary law. The former applied to whites, Metis and citizens of the four communities of the colony of Senegal, the latter to African subjects (Chanock, 1991). This peculiarity forms the basis for the main hypothesis of this dissertation, which I will discuss in the next section. The historical evidence on colonial law shows that the first (European) legal system dominated the African system (Robert & Mann, 1991; Chanock, 1991). I argue that this led to a social dilemma and the deterioration of African institutions, particularly the rule of law, as actors competed for control of the legal system and access to resources (Robert & Mann, 1991).

Instead of providing the much-needed socio-economic balance that the "assimilation" policy lacked, the new policy brought with it a high degree of authoritarianism on the part of the colonial rulers. Many of the assimilationist measures were retained (Crowder, 1964). It allowed the colonial administration to deny Africans many rights (ibid.). For example, the "indigénat code", which imposed onerous duties on natives such as prestation, forced labor and conscription in times of war, allowed colonial governors to legislate and define crimes as they

⁷ Former king of the Dahomey kingdom who opposed colonial incursion into his empire.

saw fit (Mann, 2009; Mills, 2011; Crowder, 1964). The next subsection will now take a closer look at British colonial policy in SSA and its impact on Africans.

5.3.2. British colonial policy

British colonial policy in Africa developed from a policy of differentiation and assimilation to a policy of decentralization (indirect rule). Similar to French policy, the original aim was to create a new class of British (black British) who would serve as partners in British religious, commercial and administrative ventures. These "would-be" Britons or so-called "educated African elites" included mainly Creoles, particularly in the British possessions of the Gambia, Sierra Leone, Gold Coast and Nigeria, who benefited mainly from mobility in churches, commercial enterprises and colonial administrations. However, although the colonial rulers preferred native British officials to administer the colonies, there were not enough white Englishmen to fill these positions or at least be willing to work as colonial administrators in Africa.

As a result, during its colonial rule in Africa, Britain opted for a policy of preservation, an indirect form of administration. This policy was mainly driven by Lord Lugard (Clapham, 1985; Crowder, 1964). In contrast to French direct rule, the British indirect system is characterized by the strategy of "divide and rule" and the role of native authorities in the administration of the colonies (Ali et al., 2019). Native chiefs were central to the British concept of colonial rule in Africa. While the French also relied on local leaders, the way tribal leadership was deployed under British rule differed significantly from that of the French. In the British system, they were more than mere "fonctionnaires".

One of the clearest differences between the British and French systems is the consultative nature of the British colonial system and the supervisory nature of French colonial rule (Blanton et al., 2001; Crowder, 1964). Indirect rule is based on a system of decentralized control in which natives are divided along ethnic lines to allow for an indirect form of rule by local chiefs (ibid.), although this was not always the case. In some cases, the British resorted to a direct form of control, such as in the Gold Coast, Southern Rhodesia (Zimbabwe) and India (Lange, 2004: 908; see also Msindo, 2016; Iyer, 2010).

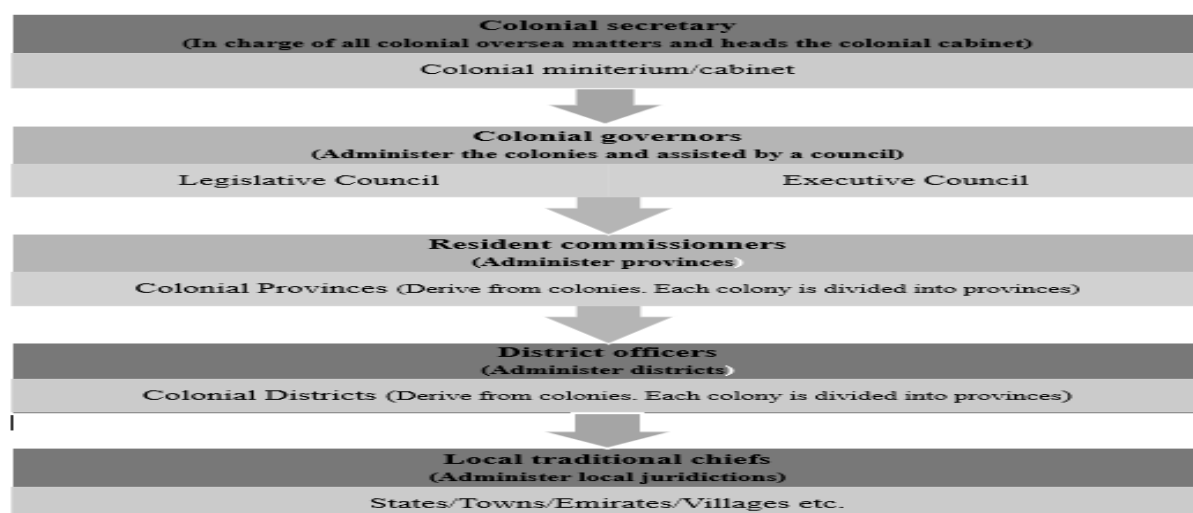
Unlike French direct rule, where the local polity is completely suppressed, the British administrative system gives tribal chiefs the power to rule over their people. This led to ethnic division and the deterioration of precolonial ethnic arrangements due to the close link between access to resources and ethnic identity (McAlexander, 2020). It should be noted, however, that

this autonomy of African chiefs was only permissible under British colonial law. That is, they were not empowered to pardon anyone, set the amount of taxes to be levied, or enact new laws, etc., but this autonomy simply depended on the extent to which the British allowed it.

Many authors consider that French and British administrative strategies explain the differences in postcolonial ethnic integration and the occurrence of conflict, with the latter strategy being more prone to the occurrence of conflict (Wucherpfennig et al., 2016). Similarly, Leeson (2005) claims that the lack of a postcolonial national identity in SSA is due to the segregation of indigenous populations along tribal lines, leading to less cooperation between them. Essentially, colonial state formation occurred along ethnic lines, which explains the absence of a strong national identity and thus strong nation-states in postcolonial Africa.

However, the colonial administrative structure of the British differed from that of France, as the following figure shows. At the top of the structure is the colonial secretary, who is based in London and is responsible for the administration of the British overseas territories. At the head of each colony is a Governor who, unlike his French counterpart, is appointed by the Crown, albeit on the recommendation of the colonial secretary. The governor resides in the colony, formulates policy and implements it. He governs through a legislative and an executive council. The council advises the governor on his administrative tasks and serves as a check on his power. The colonies are divided into provinces, and each province is headed by a resident commissioner or provincial commissioner whose role overlaps to some extent with that of the resident commissioner (Picard, 1984).

Figure 23: Hierarchical structure of the British colonial administration.



Source: Author's work based on Colonial Blue Books and Various colonial literature already cited in this subsection. See also Cohen (1971).

In the British administrative structure, a province is divided into districts (the equivalent of the cercles in the French colonies), and at the head of a district is a district officer, who reports to the respective High or Resident Commissioner and acts as an advisor to the local chiefs. The districts are in turn divided into traditional jurisdictions, i.e. states, towns, emirs and villages, depending on the precolonial geopolitical composition of the area. However, the traditional jurisdictions were headed by local chiefs, headmen, emirs or kings before the political reorganization. However, the British administration could appoint chiefs who, once appointed, exercised power over the traditional chiefs in that district, regardless of the chiefs' ancestral position (Asiwaju, 1970), or replace rebellious chiefs.

However, Figures 24 and 25 show the spatial extent of the Bornu Kingdom in the mid-19th century and the administrative structure of the Kanuri political hierarchy in Bornu before and during the British colonial period. The kingdom covered an area that included present-day southern Chad, northern Cameroon, northeastern Nigeria, eastern Niger, and southern Libya. Prior to the colonial period, the highest authority in the kingdom was the shehu (sheikh), as shown in diagram 25a in Figure 25. He owns the land and has the authority to grant land ownership to whomever he wishes. Subordinate to the supreme chief are the Chima Kura (Big lords), who live in the capital city. The latter rule through the junior lords (Chima Gana), under whom continuity of government is ensured by the heads of ethnic groups and village heads followed by hamlet heads (Mbarma), who have hereditary titles and are subordinate to the village heads (Belama).

Figure 24: Spatial extent of Bornu empire in the mid-19th century

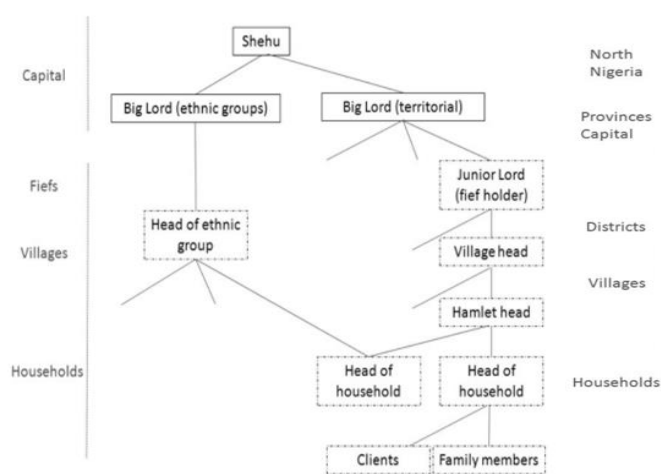


Source: Cohen (1971: 67)

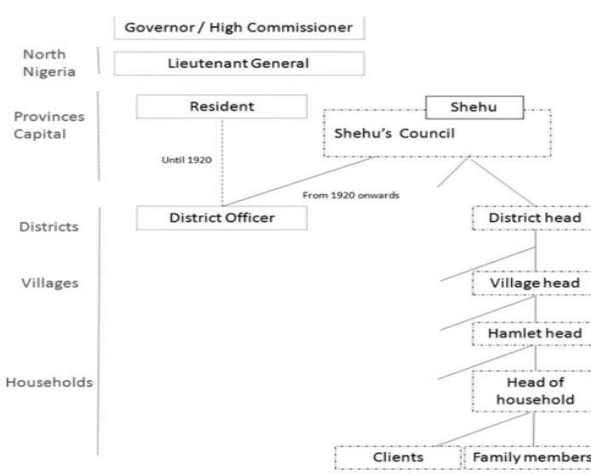
During the colonial period, which lasted 58 years, the hierarchical position of the Shehu was subordinate to the British imperial power, as shown in diagram 25b in figure 25. After the consolidation of power in 1902, the British established their institutions in Bornu to maintain control over the area, improve tax revenues, and move trade goods to the international market through Lagos (Cohen, 1971, Crowder, 1978) This move was met with resistance as it interfered with the existing pattern of Kanuri social organization (Seidler, 2014).

Figure 25: Political hierarchy of the Bornu empire before and during the colonial rule

25.a Before the colonial rule



25.b During the colonial rule



Source: Seidler, V. (2014). The author has based the diagrams on the work of (Cohen, 1971 and Crowder, 1978a).

Initially, the British allowed the monarch (Shehu) to rule as usual. But this came to a halt due to restructuring and tax requirements. As a result, some traditional leaders in the precolonial administration lost their positions and the benefits associated with those positions (ibid.). By 1920, the new reforms placed the British district official under the authority of the Shehu, as shown in Figure 25b (Kirscht, 2001). However, it is worth noting that this administrative structure is only found in Bornu, which shows how complex British colonial policy was and how many adjustment strategies Britain employed during its tenure in Africa.

British Colonial Office records indicate that law and order in the entire Kingdom of Bornu was ensured by 858 police officers, 20 of whom were Europeans and the remaining non-rank officers (British Colonial Office, 2014:10). Tax revenues were satisfactory, and law enforcement costs were low (Seidler, 2014). Despite the political stability in the kingdom, the various changes introduced by British policy were not well received and led to resistance (ibid.). For example, the merging of villages resulted in many village chiefs losing their privileges,

although some continued to collect taxes from their kin who were incorporated into other settlements as a result of spatial restructuring (Cohen, 1971). Such behavior would have conflicted with British policy and led to conflict. Furthermore, the expansion of the tax base by the British included natives who had previously been exempt from taxation (Seidler, 2014).

Before the European invasion, Kanuri social organization revolved around a number of important institutions such as "Berzum", meaning discipline and respect, and "Nungu", meaning the avoidance of shame (Cohen, 1967). Institutions such as Nzia, a gift exchange ceremony, and Islam, which was the medium of education and provided the framework for law and justice in Kanuri society, were as important as the aforementioned institutions (Seidler, 2014). Lydon (2009) argues that Islamic law was the legal basis for the trans-Saharan trade agreements. In essence, it was the basis of economic institutions. Although Islamic institutions were not innate to Africans, their spread occurred in a relatively peaceful manner through trade. Islam also illustrates the existence of patterns of social organization that were firmly rooted in the Kanuri belief system prior to the arrival of Europeans.

Berzum regulated not only the relationships between the Kanuri households, but also the economic and political interactions in Kanuri society. It is a self-reinforcing institution based on reciprocity. Berzum can be described as a patron-client relationship in which the head of the family (father) is expected to provide legal protection, shelter, food and work to his kins in return for respect, loyalty and the labor of his clients (kins). This transactional relationship secured the social status of the household members. The case of the Kanuri in the Bornu Kingdom is a concrete example of the theory of legal intermediaries developed by Berkowitz et al. (2003). This is evident in colonial Bornu as the British made few changes to the traditional Kanuri institutions due to the conditions on the ground (Seidler, 2014).

As the case in Bornu shows, the British pursued a policy of preservation through indirect rule, leaving the existing African political structure almost unchanged to promote British interests (Crowder, 1964). District administrators in British colonies had an advisory role, except in rare exceptional cases such as northern Nigeria, where they helped African chiefs implement changes that suited British interests and views. British colonial policy is epitomized by the approach of Lord Lugard in his book *Dual Mandates in Tropical Africa* (Lugard, 1922). He argues for an indigenous mandate, a kind of trusteeship in which the British were to support the development of the colonies and promote the welfare of the people.

However, the dwindling economic prospects of sub-Saharan African countries have long been associated with weak institutions that have their origins in the colonial era (Alhassan & Kilishi,

2019). The cause of this weakness is attributed by Acemoglu et al. (2001) to the low level of European settlement during the colonial period. However, the consensus in the historiographical literature points to strong African resistance to European colonial institutions (Robert & Mann, 1991; Viti, 2017; Elkins, 2005; Coquery-Vidrovitch, 1983). This suggests that (a) Europeans attempted to create institutions that were alien to Africans, and (b) Africans resisted the implementation of these institutions.

In an examination of the relationship between economic development and imported legal systems, Berkowitz develops two basic arguments. If an organization introduces a new law and adapts it to the local conditions of the place where the law is introduced, or if the people in the place where the law is introduced are familiar with it, Berkowitz argues that people will use the law to regulate their interactions. However, if the transplanted law was not adapted or imposed to local conditions, as was the case in Africa throughout the colonial period, and the population was unfamiliar with that law, Berkowitz argues that there will be little demand for the use of that law. Berkowitz's main argument is that a legal institution (the law) can only be effective if there is a demand for that legal institution, so that it is applied in practice and those responsible for developing that legal institution respond to the demand.

In summary, one of the main differences between British and French colonial policies was the treatment and use of African leaders and the segregation of the African population by tribal affiliation (Crowder, 1964). This circumstance created a persistent institutional dualism that forms the theoretical basis for my main hypothesis. In contrast to the argument of Acemoglu and his colleagues, who attribute the extractive nature of institutions in SSA and their persistence to this day to the small proportion of European settlers during the colonial period, I hypothesize instead that the institutional dualism created by the colonial experience in the form of the introduction of institutions that persists to this day, explains the weakness of institutional quality in SSA, particularly the rule of law.

In terms of economic policy, there were not many differences between the British and the French, apart from the integration of more Africans into the colonial trade as middlemen in the British system. This was due to Lugard's "dual mandate" policy, which gave more control to native traders. Like the French, the British administration sought to improve the infrastructure in the colonies to facilitate the export of raw materials vital to European industry. However, the "dual mandate" policy was not promoted everywhere in the British African Empire, as was the case in Kenya, where subsistence farming prevailed (Mills, 2011). While political and cultural assimilation was extreme in the French case, it was essentially no different from the British

concept. Unlike the French, however, Britain allowed a policy of preservation as long as it did not conflict with British values (Robert & Mann, 1991).

The starting point of my argument, however, is that European colonization in SSA, because of the revenue constraints faced by its architects, produced institutions that (a) were not adapted to local conditions and (b) with which Africans had little or no familiarity and for which there was little or no demand. Therefore, resistance to European domination and the duality of colonial institutional features that can be observed in the postcolonial period should be the focus of institutional analysis in relation to Africa. Against this background, I argue that the colonies in SSA ultimately had two types of institutions. On the one hand, one (European) that was imposed by the colonizer and was hardly or not at all accepted by the locals and has no legitimacy in the African value system, and on the other hand, another (African) that was weakened and played second fiddle to the European institutions. Although my assessment follows the train of thought of Ekeh's (1975) two-publics theory, it differs conceptually from Ekeh's theory.

I will discuss this pattern in section 7 in the context of the colonial tax system and its impact on the dismantling of precolonial patterns of social organization that I believe prevented the formation of a prosperous nation-state after decolonization. I will outline how the revenue constraints faced by Europeans at the beginning of the conquest led to the policies discussed in this section and, consequently, to the formation of colonial states. Before doing so, however, in subsection 6, I will examine the process of state formation in both Europe and Africa, as the latter is the legacy of the former.

Part II: Theory of state formation, fiscal origin of colonial states, and persistence of colonial legacy on institutions in SSA

6. The theory of state formation

The historiography of state formation has predominantly followed the European history of state development. Too often, European scholars, particularly in the fields of anthropology and international relations, have used the narrative of European state formation to explain the development of states (Herbst, 2000:21). In agreement with Charles Tilly, Herbst argues that this bias is largely due to the fact that the development of nation-states in Europe is well documented and that most nations around the world were modelled after European nation-states (Herbst, 2014: 21-22; Tilly, 1975:13-14).

However, Finer (1997) points out that European state formation is not a blueprint for the emergence of states throughout the world. He argues that "the development of the state in Europe is highly idiosyncratic" (p. 5). Many regions of the world, including Africa, exhibit different characteristics and trajectories of state formation (Finer, 1997: Book I & II; Gledhill et al., 1988:297-312). The existence of states predates the historiography of European state formation by millennia. States are among the oldest and largest forms of human organization, dating back to Hammurabi's city-state in Mesopotamia (Tilly, 1990:1), and wars of conquest and the use of coercive means were usually central to their formation, a typical feature of early forms of social organization (Tilly, 1990:1).

The definition of states is controversial. In addition to the organizational aspect, the definition includes any significantly larger territory with a contiguous population that has a power structure, a centralized human community and various sovereign polities. In this sense, a state is distinct from other forms of social organization such as households, kinship groups, tribes, lineages, corporations or churches, and takes precedence over any other form of organization in a given territory. Within this categorization, spatial organizations such as city-states, empires, theocracies, kingdoms and other forms of centralized government of people are included in the definition of a state as an organization with a legitimate monopoly of coercive power.

In this section, I will examine state formation in Africa in both the precolonial and colonial periods to assess the nature and strength of institutions. Given the role that colonization played in the emergence of modern states in Africa, it seems desirable to consider, at least briefly, the landscape of state development in Europe and the ways in which rulers in those states exercised their power. To this end, I will examine the rise of "modern states" in Europe, which began in

the 16th century and continued into the 20th. For simplicity reason, I will equate the terms nation-state and national-state with the term "modern state" throughout this section. It should be noted, however, that nation-state and national state do not necessarily mean the same thing (Tilly, 1990:3).

6.1 European state formation

The question of what exactly a state is and how power is exercised over it has been extensively studied (Herbst, 2000; Tilly, 1990). Max Weber defines the term in the context of a "monopoly of violence" (legitimate force) over a physical territory. He describes the state as a "human community that (successfully) claims the monopoly of the legitimate use of physical force within a territory" (Weber 1946:78). Similarly, Tilly (1990) defines a state as a "coercion-wielding organizations that is distinct from households and kinship groups, and exercise clear priority in some respects over all other organizations within substantial territories" (p. 1).

Over the last centuries, beginning in 990 AD, Europe has witnessed the development of different types of states, as these organizations held a monopoly on the main means of coercion. According to Tilly, they range from "empires, city-states, federations of cities, networks of landlords, churches, religious orders, pirate bands, warrior bands, and various other forms of polities" to national states as the predominant form of government (p. 5). However, state formation in Europe is strikingly different from the African experience as (Herbst, 2014: Ch. 1) notes. States developed along different paths, but converged over time in a similar direction of change - "national state". Unlike the rest of the world, with the exception of China, Europe in the 15th century was more culturally homogeneous in terms of language, law, administrative practices, agriculture, land ownership, kinship, and religion, thanks to the early rule of the Roman Empire (Tilly, 1990:5; Tilly, 1975:18).

Moreover, Europe had several trading cities that connected, albeit unevenly, most areas with more successful production systems, as well as a trade network that stretched from the Mediterranean to eastern Asia. With the exception of a few notable pockets of resistance⁸, Roman rule created a similar cultural environment, so that Europeans developed close relationships with each other through the constant mobility of people and the enormous overlap of ruling families.

⁸ The Celts and Basques in the north and west of Europe, respectively, the Magyars and Mongols in the east, and the Turks including other Muslim groups in the south Tilly (1975:18).

Another remarkable fact about Europe around 1500 is that the majority of the population were farmers and agriculture dominated the landscape of economic activities, in contrast to hunting, pastoralism or commercial activities, which were rare. Most of the agricultural production was absorbed by urban consumers in the form of rents, levies, taxes and the sale of crops. Most of the population was under the control of the landlords, even in urban areas such as northern Italy, as they maintained a relationship with the ruler that ensured them control over the land in the form of levies on the peasant population, ownership of lands (especially in the 19th century), control over peasant labor (serfdom) and access to political power.

In 1500 Europe, religious life was dominated by a single but fairly centralized religious institution – the Catholic Church – and the political tradition of the relatively weak empires on the continent was quite similar. Tilly (1975) points out that in large part of Europe, "a single-family system predominated; bilateral descent leading to the diffuse kindred (rather than a corporate group like the lineage) as the chief larger kinship unit, tendency towards a nuclear family residence, small households, relatively late marriage, frequent celibacy, and consequently, moderate birth rate" (p. 18).

Europe of that time was highly urbanized, much more so than China, and was characterized by the growing presence of cities that dated back to earlier centuries. Although unevenly distributed across the continent, they developed into centers of trade, manufacturing, communication, and administration. Note that cities had begun to strengthen their influence in their backyards through cottage industries before the 16th century. Tilly points out that urban capital owners were already influencing the countryside in a variety of ways: as merchants who traded in the produce of peasants, as city lords who exerted organized pressure on the countryside to secure their own supplies, as entrepreneurs in rural industry, as moneylenders, and increasingly as landlords in the hinterlands of the larger cities (ibid:20).

This interaction ensured the supply of manufactured goods to the urban market, provided an alternative source of income for the peasant population, and eventually led to the emergence of proto-industrialization⁹ (Barzun et al., 2022; Mendels, 1972). Examples of this can be found in the Flemish regions, southern England, and northern Italy (Gullickson, 1983; Tilly, 1975:20). By the 16th century, proto-industrialization was in full swing in Europe (Barzun et al., 2022;

⁹ Proto-industrialization is the name used to describe the expansion of export-driven handicraft that took place in several places in Europe between 1700s and 1800s. Ogilvie (2008:1).

Gullickson, 1983), although Gullickson stresses that unemployment and landlessness, rather than subsistence agriculture, were at the heart of proto-industrialization.

However, a closer look at the above patterns of social organization in Europe reveals two interesting facts. First, it shows the availability of sufficient capital and the diversity of the means of production, which were closely linked to the land and strongly concentrated in the hands of certain individuals or groups. Second, it also enabled the state founders of that time to have access to resources, (see Tilly, 1975, 1990 and Wolf, 1966).

The cultural homogeneity of Europe was very important for the emergence of states. Primarily because it facilitated the spread of organizational models, the expansion of states to new regions, the relocation of people from one state to another, and the transfer of bureaucratic human resources from one government to another (Tilly, 1975:18). Despite all this, the everyday social and economic life of the people remained local, with a low level of market production and a reduced level of communication due to the diversity of local dialects, which divided people into language groups and thus made mutual communication difficult. Nevertheless, the similar conditions under which the early nation-states emerged should not be underestimated.

From the mid-15th century, population density in Europe increased sharply, first in Italy and later elsewhere. This situation, unlike in Africa, led to intense competition for territory, so that states had to become stronger to defend themselves against land grabs by rivals and to consolidate their power (Herbst, 2000:13). Charles Tilly argues that the centralization of European states was caused by "continuous and aggressive competition for trade and territory," despite the different paths that states took (Tilly, 1990:54).

Tilly (1990) argues that cities played an important role in European state-building by acting as "containers and distribution points for capital". In turn, states acted as "containers and deployers of coercive means, especially armed forces"(p. 51). Capital enabled the ruling class to exercise authority over the urban hinterland and distant trade networks (p. 51). Considering that cities are sites of capital accumulation, they allow those who control political authority easy access to capital and thus control over the surrounding countryside. This is clearly expressed by Adam Smith, who argues that "a country in which there are many merchants and manufacturers ... necessarily has a number of people who have it in their power at any time to give a very large sum of money to the government if they choose." (Smith, 1778/1977: Book.5: 1227).

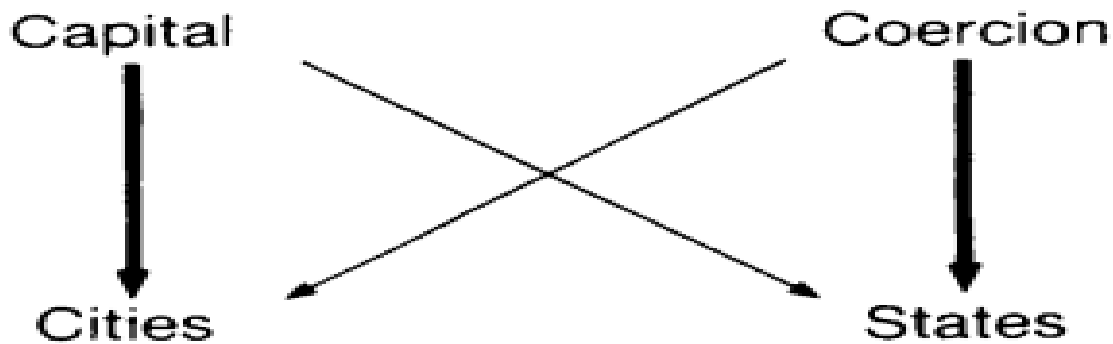
The following illustration is from Tilly's works. It shows how capital and coercion work together to create cities and states Tilly (1990:16-). Capital, in Tilly's argument, refers to all "tangible, mobile resources and enforceable claims on those resources," which, simply put, define the sphere of exploitation in which surpluses are created (p.17). Tilly argues that cities are created by the accumulation and concentration of capital and tend to be the preferred location of capital owners, and where "household survival depends on the presence of capital in the form of wage labour and investment, redistribution, or any other strong link" (p.17). Therefore, according in his view, population expansion follows capital expansion and vice versa, and wherever capital is accumulated and concentrated, urban growth is likely (p.17).

Tilly points out that the inhabitants of cities generally relied on others to meet their food and fuel needs, and argues that cities that could not provide inexpensive water transportation faced high food costs. This meant that only places with efficient transportation and agricultural systems experienced rapid growth. This is consistent with previous studies (de Vries, 1976). The growth of cities also affected the surrounding countryside, as most agricultural production was destined for sale. In short, the accumulation and concentration of capital promoted the growth of cities while contributing to the transformation of the surrounding countryside (Tilly, 1990:19). Wherever the concentration of capital takes place, the urban population will settle near that area (ibid:18)

Tilly describes coercion as: "all concerted application, threatened or actual, of action, that commonly causes loss or damage to the persons or possessions of individuals or groups who are aware of both the action and the potential damage" (ibid:19). According to him, coercive means refer to armed forces, but also include imprisonment, dispossession, humiliation and public threats (ibid:19). He identifies two main groups that specialized in coercion: Army soldiers and landlords. Like capital, the means of coercion can be accumulated and concentrated in the hands of people, and to varying degrees. According to Tilly, this led to the emergence of states by producing organizations that control the means of coercion and all other organizations in a given spatial area, as shown in Figure 26.

For Tilly, over time, "the place of capital in the form of states increased, while the influence of coercion (in the form of policing and state intervention) also increased" (ibid:17). This explains the direction of the intersecting arrow in Figure 26. Tilly points out that "Lewis Mumford's baroque city, like its cousins," thrived on capital but had a more distinct "imprint of princely power-in palaces, parade grounds, and barracks-than they did" (p.17).

Figure 26: The effect of capital and coercion in the production of cities and states



Source: Tilly, C. (1990).

Given the territorial context of state formation in Europe, which led to the spread of wars, and the increasing role of states beyond the original role of warfare, in the form of building roads and railroads, improved navigation systems, policing, building schools, regulating relations between capital and labor, in short, the provision of public goods, brought states to negotiate directly with their subjects for taxes, military service, and cooperation in government programs, leading to a reduction in the role of local patrons through the placement of state representatives in each community and the expansion of consultative rule in the form of elections, plebiscites, and legislatures (Tilly, 1990:63).

Tilly argues that "Together they promoted nationalism both in the sense of popular identification with state ends (for the majority) and (for the minorities) in the sense of resistance to demands for uniformity and integration, resistance in the name of distinctive linguistic and cultural groups. The omnipresent state, the struggles over its rulers and policies, the formation of serious budgetary competitors to the armed forces, and many other features of states we now take for granted emerged in the nineteenth-century absorption of the general population into the state. European states, for all their differences in relations between state and economy, began to converge on a model of bureaucracy, intervention, and control" (ibid:63).

To summarise, war and territorial competition drove the formation and transformation of states in Europe (Tilly, 1990:20-23). The use of coercive means in war poses two main problems for the conqueror: a) the administration of the conquered land, its people and goods and b) the indispensable participation of the conqueror in the extraction. Assuming that the ruler is successful in his endeavour, the need to consolidate his success requires the administration of the land. Therefore, he will be forced to participate in the extraction of resources, the distribution of goods and services, the redistribution of income and the settlement of disputes.

On the other hand, the preparation of a war, especially on a large scale, requires financing by the conqueror in the form of building an infrastructure for taxation to finance the war, the supply chain and the maintenance of the army. In commercial cities such as Genoa, this was done by "borrowing or contracting the structure necessary for the acquisition of the means of war" (Tilly, 1990:21).

The formation of the state in Europe was primarily characterised by the connection between the cities, the centre of political powers, and the surrounding countryside. Only highly urbanised places could sustain high productivity (Herbst, 2000:14). This assessment is also shared by Bairoch (1988: ch. 1) and de Vries (1976:164). The "war-provoking logic" that was integral to European state development meant that anyone with sufficient coercive resources could secure and hold territory from which they derived the benefits of coercion, regardless of the losses they suffered by exercising authority in the hinterland, which essentially served as a buffer zone (Tilly, 1990:70). The hinterland protected the state from external competitors, as it was the first line of defence to protect the state.

Moreover, the economic and demographic influence of European cities played a crucial role in state formation. Tilly argues that the increase trade between rural and urban regions made it easier for rulers to raise revenue through customs duties and excise taxes. In addition, the strong commercialization of the economy enabled monarchs to circumvent the influence of prominent landowners more effectively by extending royal power to towns and villages (Tilly, 1990:49). Cities were able to influence rural social life through food supply, migration, trade, communication, and employment opportunities they provided.

In the following subsection, however, I will deal with state formation in Africa. It is a fact that contemporary states in Africa and almost everywhere else in the world owe their existence to European state systems or are modelled at least after them as I noted in the beginning of this section. Africa was under colonial rule for almost a century and therefore owes the existence of the present states to the European colonial legacy. Against this backdrop, it was important to know how modern states emerged in Europe to assess the efforts of colonial state founders in Africa. In this way we can compare the conditions that contributed to state formation in Europe to those in Africa, and determine if colonial state builders in Africa attempted to emulate their home countries efforts or decided otherwise.

To understand state formation in Africa, it would also be desirable to know what Europeans thought about Africa and what Africa looked like before Europeans arrived on its shores. Were there viable states in this part of the world? How were the political and economic systems in

Africa organised and how did they develop? These questions are important for a comparative assessment of state formation before the arrival of Europeans in Africa and after the conquest of the continent. In this way, the efforts of the precolonial and colonial state founders can be evaluated.

6.2 Precolonial European perception of Africa

Contrary to the Eurocentric views of Hegel and Arnold Toynbee (Dalglish, 2005), there is more than enough evidence in the literature about the existence of well-developed institutions in sub-Saharan Africa before the arrival of Europeans (Diop, 1987; Dalglish, 2005). Yet, despite this evidence, a negative picture of Africa and its institutions, including the way of life in the precolonial period and up to the present, is predominantly poorly painted from a European perspective. These distorted views have been propagated by prominent Western scholars, religious institutions and governments alike.

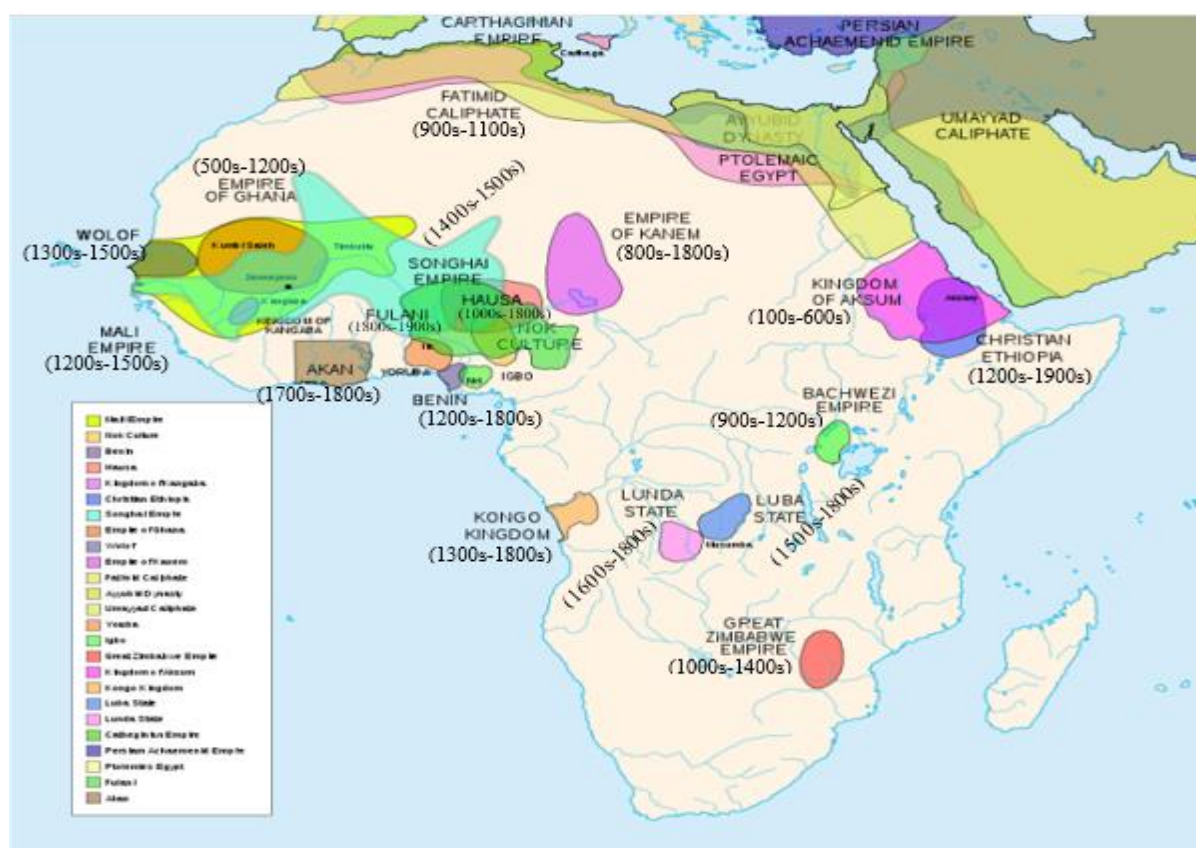
According to proponents of colonialism, who undoubtedly helped shape public perceptions of Africa and its precolonial institutions, civilization was brought to Africans by Europeans. They argue that African institutions were backward and lacked progressive laws. These claims, which reflect the conventional Western logic of the time, are corroborated by the views of some of the most famous European scholars and statesmen such as Aristotle, Gottfried Leibniz, Gottlob Frege, David Hume, Winston Churchill, John Stuart Mills, Theodore Roosevelt, the list goes on... (The Guardian, 2005; BBC News, 2015; Quinault, 2005; Young, 2000; Said, 1993; Glass, 2017; Hall, 2014).

In contrast to Mills, who spoke out against the situation of slaves in Jamaica, Aristotle believed in the supremacy of one race over another. Like his mentor Plato, Aristotle also advocated a theory of natural slavery. According to him, slavery was a form of natural law, according to which some people were born slaves and others masters (Smith, 1983; Pellegrin, 2013; Heath, 2008). Similarly, Leibniz advocated the forced Christianization of dark-skinned people by Europeans and the legality of slavery (Jorati, 2019). Frege reiterated his anti-Semitic views in Germany (Hall, 2014). However, the following Figure 27 sheds light on precolonial political organization in Africa. The figure shows the existence of several centralized kingdoms and empires and the times in which they emerged and declined.

Similar to the detractors mentioned above, Hegel asserts that: "The peculiarly African character is difficult to comprehend for the very reason that about it we must give up the principle which naturally accompanies all our ideas – the category of Universality... The Negro exhibits the

natural man in his completely wild and untamed state" (Hegel, 1837/2001:110). An equally aberrant and history-ignorant remark about African civilization comes from the British historian Arnold Joseph Toynbee. Toynbee states that "when we classify mankind by color, the only one of the primary races ...which that has not made a creative contribution to any of our twenty-one civilizations is the black race" (cited in Jackson, 1972: 184). However, it will fair to say that Toynbee is completely wrong in his assessment or intellectually dishonest when one considers the contribution that the "black race", to use Toynbee's own word, has made to mathematics, medicine, astrology, and other technological discoveries, in addition to the invention of Egyptian hieroglyphics (Gerdes, 1994; Zaslavsky, 1999; Diop, 1987; CBC, 2021; Live Science, 2023; Otele, 2021).

Figure 27: Precolonial African Empires and Kingdoms from 500 BC to 1500 AD.



Source : <https://www.heritagedaily.com/2020/03/the-kingdom-of-aksum-africas-lost-empire/119720>. Image credited to Jeff Israel. Note, however, that the various dates for the rise and fall of the empires/states in the figure were added by me, based on several historical sources used in this dissertation.

Churchill took a similarly derogatory stance in his Darwinian beliefs, extolling the concept of a European "stronger and superior race", as Elia Zureik pointed out. In his speech to the Peel Commission, Churchill is said to have argued: "I do not agree that the dog in a manger has the

final right to the manger, even though he may have lain there for a very long time. I do not admit that right. I do not admit for instance, that a great wrong has been done to the Red Indians of America or the black people of Australia. I do not admit that a wrong has been done to these people by the fact that a stronger race, a higher-grade race, a more worldly-wise race... has come in and taken their place" (Zureik, 2015: 213).

Andrew Robert, a well-known pro-colonialist historian, also rejects any historical achievement of African peoples and proposes the recolonization of Africa (Ndanyi, 2016). According to him, the British Empire has brought many benefits to Africa and the only way to save the "dark continent from itself" is a new imperialist conquest (ibid.:4). Ironically, even before Andrew's remarks, many believed that a new imperialism had long begun in Africa (Rodney, 1972/2018).

Although these propaganda and falsehoods about African civilization and its institutions have been refuted by scholars such as Cheick Anta Diop and prominent European historians, philosophers and politicians (Diop, 1987; Gennaioli & Rainer, 2006; Ayittey, 2006), the fact remains that the colonial experiment in Africa was aided and abetted by European academia and its religious institutions including its political elites (Chanock, 1985; Roberts and Mann, 1991). Colonization was accelerated by the promotion of the Christian faith through countless missionary expeditions to the colonies. European missionaries played an important role in the so-called "pacification" of Africa through Western education (see Chanock, 1985; Frankema, 2013).

Following Roberts & Mann (1991), I argue that one of the factors that contributed to the erosion of African legal systems was the role of European missionaries who preached to the natives that it was a sin to break the law – the colonial legal system (Roberts & Mann, 1991:15). The European missionaries not only helped to "pacify" the natives through Western education, but also played an important role in spreading the colonizer's legal system and culture, thus degrading the existing institutions. Chanock (1985:80, 128) argues that the entrenchment of British laws in the psyche of Africans went "hand in hand with transfusing religious guilt". Marx and Engels view religion as opium for the people (Marx & Engels, 1843/2012). The central tenet of their philosophy is that religion forces the masses to accept their misery.

Driven by the desire to spread Christianity and European culture, Western missionaries felt compelled to implicitly, and in many cases explicitly, endorse colonial rules to achieve their goal. That is, they wanted to civilize the backward and pagan natives in Africa (Mbuwayesango, 2018; Comaroff & Comaroff, 1986; Kapenzi, 1978). Smith (1941) describes the complicity of Western religious organizations in the subjugation of Africans and their institutions to Western

rule. Walter Rodney (1972/2018) underlines a similar claim by denouncing Christian churches in Africa as an instrument of cultural penetration and domination.

In the same train of thought, Smith L. Roy argues that: "the merchant, the missionary, and the military man - all went out on the same ship together. They might not have any official relationship, but despite their mutual aloofness, they were actual confederates, making a triple assault on the culture of the "heathen." Whether in matters of theology, economics, or politics, it was the white man against the man of color. However much they might look with suspicion on one another's program and technique, they stood together – merchant and missionary and military men – and maintained white supremacy." (cited in Mbuwayesango, 2018: Ch. 2).

Considering the views of Europeans on African social organization in general and their culture in particular as outlined above, it is important to get a picture of African institutions prior to contact with Western civilization. Did African institutions enforce law and order, or were they, as described by Eurocentric scholars and the Christian institutions, a collection of savage and backward organizations? I begin this discussion with an overview of precolonial African institutions and an examination of the interaction between Africans and Europeans prior to the colonization of SSA.

6.3 Precolonial African institutions

Cheick Anta Diop's study is one of the most thorough examinations of precolonial medieval African society and institutions. Drawing on the works of Abu Ubayd Al Bakri, Ibn Khaldun and Ibn Battuta as well as numerous historians, Diop paints a clear and comprehensive picture of precolonial Africa by comparing the political and social systems of Europe and "Black Africa" from antiquity to the emergence of modern society. His study shows that the state of political organization in SSA prior to contact between Africa and Europe was far more stable and organized than in Europe (Diop, 1987: ch. 3 & 4).

Building on earlier historical works (Ribard, 1947; Vignaux, 1938) as well as Foustel de Coulange, Diop draws a chronological picture of the emergence of modern European nations immediately after the end of antiquity. He describes a very turbulent period in Europe, marked by the rise of Christianity, the decline of intellectual capacities in the High Middle Ages, the immense contribution of Eastern scholars to the technical progress of Europe, and the rise of the new modern nations, triggered by the failure of the "universal empire" and the great discovery. A distinctive feature of this period is the emergence of European feudal society.

Diop argues that European societies of the pre-feudal period were characterized by the invasion of the great barbarians (Normans, Hungarians, etc.) and a long period of political instability that plunged Europe into a spiral of anarchy for many centuries. Historians refer to this period as the "Dark Age". Contrary to Eurocentric prejudices, however, Diop (1987:ch.4) examines prefeudal society in Africa in parallel and finds evidence that contradicts Eurocentric views. His study describes a period of stability and the existence of advanced political and social organization in Africa.

Africa witnessed the rise and fall of several well-organized kingdoms and empires between the first and twentieth centuries, notably Ghana, Mali, Songhai, the short-lived Sosso Vassal Empire, the Sokoto Caliphate, the Bornu Empire, the Oyo Empire, the Ashanti Confederacy...., and the list could go on (see Figure 27). According to historical accounts, these empires were politically centralized and had well-established legal, economic and religious institutions (Lovejoy, 1978; Diop, 1987; Dalgleish, 2005; Ogundiran, 2012).

Like Europe, Africa also benefited from the contributions of Eastern scholars through the spread of Islam (Diop, 1987: Ch. 3). But as far as I know, the Arabs never claimed to have civilized Africans. According to Diop, the Islamic institutions and the Catholic Church, which preserved the knowledge of antiquity, played an important role in transmitting this knowledge to the emerging modern nations during the Middle Ages. With the exception of the invasion of the North (Maghreb), Islam spread peacefully through trade in Africa (Hill, 2009; Michalopoulos et al., 2018), in contrast to Christianity, which was in cahoots with imperial powers (Mbuwayesango, 2018; Comaroff & Comaroff, 1986; Kapenzi, 1978; Smith, 1941).

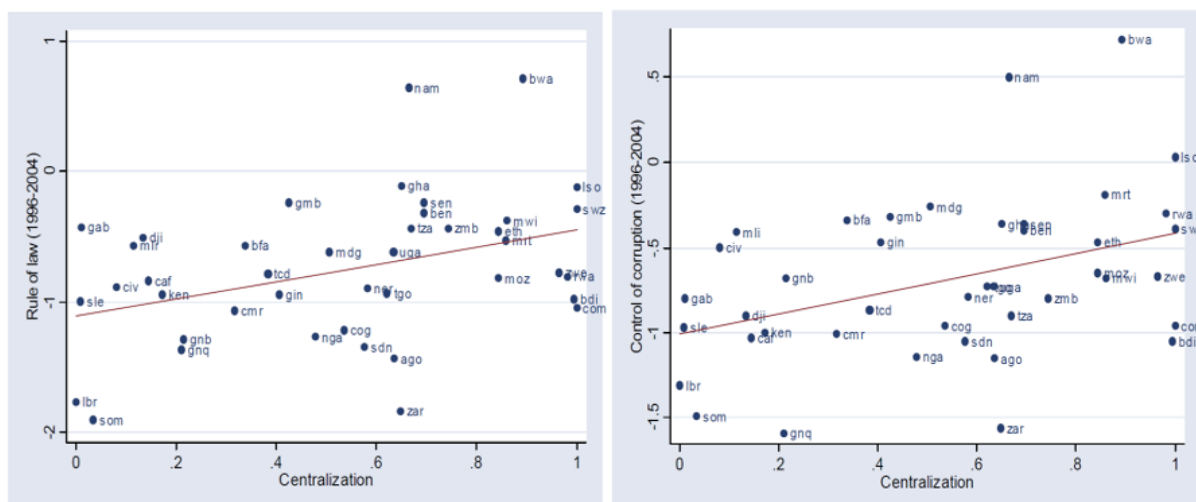
Diop's account of precolonial African institutions is substantiated by other studies. Gennaioli and Rainer, for example, confirm this assessment in an empirical study. They find that precolonial African institutions reduced corruption, promoted the rule of law and improved the provision of public goods in colonial and post-colonial Africa (Gennaioli & Rainer, 2006). Contrary to popular belief, Ayittey (2006) argues that the majority of African societies were not ruled by tyrants but by a variety of forms of government, including hereditary monarchies (p. 13). Nevertheless, based on Large-N data, Wig (2016) finds some evidence of a link between precolonial ethnic institutions and the occurrence of civil wars. However, the study concludes that only decentralized ethnic institutions are likely to be involved in wars.

The view that political centralization improves the quality of government is widely supported in the literature (Riker, 1964), notwithstanding the argument that decentralization increases the quality of institutions through competitive channels (Tiebout, 1956). As Ayittey reports, there

were several centralized and noncentralized political institutions in precolonial Africa. According to historical accounts such as Abubakar (1980) and Falola (1999), precolonial African institutions had a positive impact on governance and consequently on modernization efforts in colonial and post-colonial Africa. Falola provides, for example, a detailed account of precolonial states and societies in Nigeria, including foreign trade. Schleifer & Vishny (1993) also reached a similar conclusion, asserting that a centralized system helps reduce corruption.

The following figure illustrates the relationship between precolonial centralized African institutions and contemporary institutional quality based on Gennaioli and Rainer's findings. The graph on the left shows the relationship between the precolonial pattern of centralized political organization and the strength of the rule of law. The second chart on the right shows the relationship between the corruption index and precolonial indigenous institutions in Africa. The political centralization data cover 42 African countries, and the results for both indicators of institutional quality show a 0.593 increase in the corruption index in centralized ethnic groups and a 0.659 increase in the rule of law in centralized localities.

Figure 28: Relationship between Precolonial centralization, control of corruption, and the rule of law



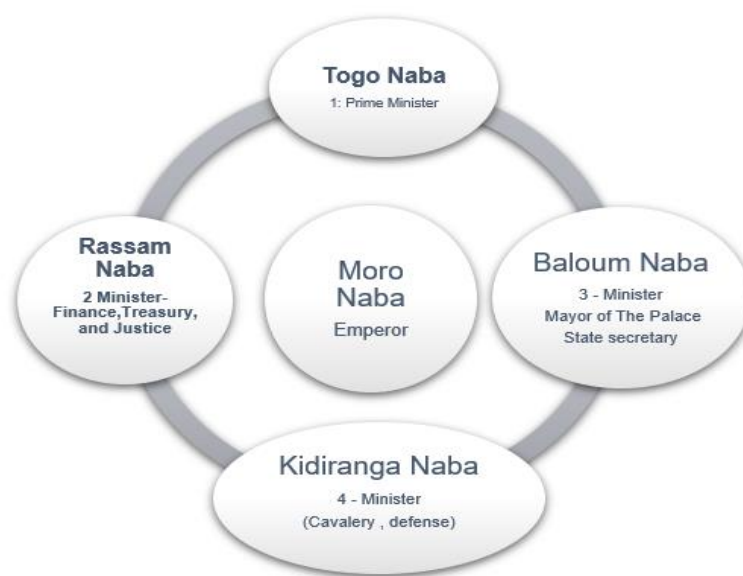
Source: Gennaioli & Rainer (2006).

However, to capture the historical dimension of African institutions, Diop provides a detailed account on the political, economic, legal, and social dimensions of African civilization and institutions. Figure. 29 is an illustration of the political organization of the Mossi kingdom, which was less affected by the spread of Islam and Christianity. The Mossi political organization is one of the earliest forms of constitutional monarchy, in which the monarch is elected by an electoral college in which all communities of Mossi society are represented.

According to Diop's study, the Mossi political organization may date back to the founding of the Ghana Empire in the first century.

The ruler of the Mossi Empire is the Moro Naba, as represented by the middle circle. The Moro Naba comes from the same noble family. Unlike the king in a Western monarchy, however, the Emperor does not automatically ascend to the throne by virtue of his lineage. He is elected through a selection process involving an electoral college of dignitaries under the supervision of the Prime Minister, known as the Togo Naba as indicated by the upper circle of Figure. 29. The emperor is sworn in by the Togo Naba, who is not himself a Nakomsé¹⁰ but comes from a common family and represents the free people of Mossi society. In addition to the prime minister, the Emperor is assisted by three other ministers, the Rassam Naba, the Baloum Naba, and the Kidiranga Naba, as represented by the two circles on the side and the lower circle. Each minister is responsible for a region in addition to his role in the electoral college.

Figure 29: The constitutional monarchy of the Mossi Empire



Source: Author's work Based on Diop (1987).

The Togo Naba is the prime minister and the most important dignitary among the members of the electoral college. He comes from a simple family of the free people of the Mossi Kingdom and is chosen from three ethnic families residing in Toïsi, Kierga and Nodé. He is responsible for the royal districts of Tziga, Sissamba, Somniaga and Bissigai.

¹⁰ Nakomsé: Noble

The Rassam Naba is the second most important minister of the Electoral College. The Rassam Naba, who is also called Bingo Naba, is the head of the slaves of the crown and is also a slave who comes from the same slave family. Unlike the slave in feudal Europe, the Rassam Naba is entrusted with the finances of the empire (e.g., treasury and money management) in addition to his role as an elector. He is also responsible for administering justice to lawbreakers and, with the help of the Saba Naba, assumes the role of the crown's chief blacksmith. Despite his status, the Rassam Naba rules over free people and is the administrator of Kindighi Canton.

The Baloum Naba is the mayor of the royal palace and the third most powerful minister after the Togo Naba and the Rassam Naba. He introduces ambassadors and important visitors to the crown. He administers the territories of Zitinga, Bussu and Gursi.

The Kidiranga Naba, on the other hand, is the fourth member of the Electoral College and the last in order of importance. He leads the cavalry and defense of the crown and is chosen from one of the three common Mossi families. Like his electoral peers, the Kidiranga Naba cannot be removed by the king once he is appointed. This underscores the scale of the political system, which is difficult to imagine in feudal Europe. The stratification of Mossi society illustrates a well-established and functioning political system in which all social categories of the empire are represented.

However, a constitution similar to that of the Mossi existed in the kingdoms of Senegal, namely the Walaf of Cayor Baol and Serères, and it remained in force until 1870. According to (Diop, 1987:ch. 3,4), Bakri¹¹ was very clear about the strict application of tradition in the kingdom of Ghana. He argues that the prevailing Mossi and Cayor constitution dominated the political landscape in the Ghana empire and African states and this may have been the case for two thousand years.

In addition to well-documented political organization prior to European interference, there is historical evidence that African states had well-structured and organized administrative, economic, and military organizations. For example, the Ghana Empire, which long traded with the Orient and the Mediterranean, had a cosmopolitan and international capital with an Arab quarter and several mosques, ruled by a black monarch. According to Bakri, quoted by Diop (ibid: ch. 5), the reputation of the empire's military reached as far as Baghdad (p.91). The economic organization of these African empires in precolonial times was generally based on

¹¹ A Muslim geographer: author of the Kitāb al-masālik wa'l-mamālik ("Book of Highways and of Kingdoms"), see Gilliot, C. (2006). al-Bakri (geographer). Routledge, New York.

trade in goods and services, agriculture, manufacturing and mining (Green, 2013; Austin, 2008; Davidson, 2013; Iliffe, 1995/2017). Revenue and state resources consisted of taxes, customs revenue, gold mines and the royal treasury. Individual taxation consisted mainly of tithes, a common tax on people's wealth in all kingdoms. Taxes were mainly paid in kind and later in gold currency.

Customs revenue consisted of import and export duties. As Diop (1987: ch. 5&6) notes, according to Bakri's reports, the Ghanaian emperor (not to be confused with modern Ghana) levied one gold dinar for each mule loaded with salt that was imported into the country and two gold dinars for each load of salt that was exported. According to the accounts of Bakri, Ibn Battuta, Khaldun, Sâdi and Kâti, the main source of income for African rulers from ancient to modern times was gold from the mines. The royal treasury was the last source of income for the monarchy. Its income consisted of raw gold pieces and nuggets as well as taxes in kind (e.g. grain and other processed products, etc.).

According to the Eurocentric view, Africa's economy was a subsistence economy and industrialization never saw the light of day in this part of the world before the arrival of Europeans. However, this view is based either on a lack of knowledge of Africa's economic history or on intellectual dishonesty resulting from a biased view. In the 19th century, thanks to a well-developed trade network with the outside world (Trans-Sahara) and within Africa, there was a successful period of commercial agriculture and handicrafts, especially textile production, before colonial rule halted this momentum of internal development.

According to many economic historians, notably Mendels (1972), proto-industrialization, largely based on the cottage industry, is the first phase of industrialization. It has been described as one of the main causes of industrialization and capitalism, despite claims to the contrary (Ogilvie, 2008, Ogilvie & Cerman, 1996). Against this background, it is also important to show that Africa has a long history of proto-industrialization through various artisanal activities, a dynamic that was destroyed with the onset of colonial rule (Maxon, 2002; Ochieng; 2002; Ochieng & Maxon, 1992; Ndalilah, 2012).

Mugao & Kithinji (2021) examined several cottage industries, namely pottery, textiles, beehives, boat building, baskets, blacksmithing, medicine production, sculpting, flour and gruel production, brewing and hoe making for agricultural works that sustained the local Tharaka economy in Kenya before Victorian rule. He concluded that British colonial policies were instrumental in destroying this vibrant dynamic. Similar studies have also confirmed the impact of colonial rule on the development of this important sector in Africa.

Kasar Hausa, for example, was a state known for its vibrant and dynamic economic activities in agriculture and cottage industries both locally and regionally and internationally before the arrival of the British. According to Shehu (2017), this dynamism ended with British colonial rule. Frederick (2018) argues that the deindustrialization of Africa, especially the eastern part, began with its integration into the capitalist economy in the early 19th century. According to the author, this destroyed the vibrant and dynamic artisanal textile industry in East Africa.

In light of this historical evidence, I cautiously conclude that African states had well-established (indigenous and Islamic) legal systems prior to colonial conquest. The forced introduction of the Western legal system in the colonies was crucial for successful colonization (Joireman, 1991). Robert and Mann (1991) argue that the subordination of African laws and rules to Western institutions by colonial administrators contributed to the erosion of indigenous institutions. I will explain this mechanism in the following subsection. Before doing so, however, let us examine the emergence of states in Africa. To this end, I will first examine precolonial state development and then the efforts of colonial state founders.

6.4 States formation in Africa

The historiography of state formation in Africa can be divided into two parts: state formation in precolonial era and state development during the colonial period. According to Aidan Southall, many African kingdoms and countries arose through subjugation. However, he also contends that many others emerged through a more "peaceful adoption and assimilation of ideas and institutions from their neighbours". In addition, Southall argues that some states in Africa emerged through "internal development driven by population growth, improved production, the need to organise and coalesce for migration or protection from new external threats, and the stimulation of changing environmental conditions and openings through migration, expansion, or human-induced changes in local ecology" (Southall, 1974:154).

In the first Chapter of his book, "The Challenge of State Building in Africa", Jeffrey Herbst argues that "THE FUNDAMENTAL PROBLEM facing state- builders in Africa – be they precolonial kings, colonial governors, or presidents in the independent era of independence – has been to project authority over inhospitable territories that contain relatively low densities of people" (Herbst, 2000:11). Although I recognise that the geography of Africa, like that of many other regions of the world, presents a different challenge.

I caution against stereotyping the region as "inhospitable" because every geography in the world presents a different challenge given the technologies available, but these have not prevented

people from living in and developing their habitat. I will argue that without technological progress, the geography of Europe would be more "inhospitable" than tropical Africa. In light of this, I agree that the geographical challenges of Africa have not prevented the rise of several civilizations (Diop, 1987).

It is no secret that Africa lagged behind Europe, Asia, and many other regions of the world in terms of population density, as Table 2 shows. In 1997, Africa accounted for 11 percent of the world's population. Iliffe (1995:71) argues that underpopulation in West Africa was the main obstacle to state formation because, unlike Europe, low population density could not provide the surplus needed to support the ruling classes, while areas of high population density had little incentive to do so because the abundant and empty land allowed them to escape political oppression. Unlike Europe, this meant that it was more expensive for state founders to exercise rule over a given number of inhabitants in such large areas.

Table 2: Comparative statistic of Population Densities per square kilometre from 1500-1975.

<i>Region</i>	<i>1500</i>	<i>1750</i>	<i>1900</i>	<i>1975</i>
Japan	46.4	78.3	118.2	294.8
South Asia	15.2	24.1	38.2	100.3
Europe	13.7	26.9	62.9	99.9
China	13.4	22.2	45.6	91.1
Latin America	2.2	0.8	3.7	16.3
North Africa	1.6	2.2	9.4	14.1
Sub-Saharan Africa	1.9	2.7	4.4	13.6
Former U.S.S.R. area	0.6	1.6	6.1	11.6

Source: Herbst (2000:16). "Calculated from John D. Durand, "Historical Estimates of World Population: An Evaluation," Population and Development Review 3 (September 1977): p. 259; World Bank, World Development Report 1992 (Washington, D.C.: 1992), p. 219; and Food and Agriculture Organization, Production Yearbook 1993 (Rome: FAO, 1994), pp. 3–14. Table was calculated using the midpoint of the population estimates that Durand presents".

In addition to low population density, two other factors seem to have hindered the ability of political leaders to form states and thus increased the cost of extending power over their people: the differences between ecological zones within the continent and the distance between the centre of power and the periphery. Compared to Europe, the ecological differences between areas within a country were greater in Africa, which also entailed the development of different models of state control and was therefore costly for African state founders. This made state-

building more expensive for rulers in Africa than in Europe and Asia, where ruling a more homogeneous hinterland entailed different costs (Herbst, 2000:12). In addition, the transfer of power over long distances was more expensive in Africa than in Europe, as the geographical barriers in the region limited the development of the transportation system.

The political geography of Africa, especially the high cost of transportation, is best described by Austen & Headrick (1983) and in Austen (1987:20). Austen points out the impact of geography on long distance transportation, the limitation of navigation, the problem of navigability of most rivers, and the puzzling lack of wheeled transportation in Africa. Contrary to these claims, the wheel was not alien to Africans (Chaves et al., 2013), and its purported role across the continent remains to be thoroughly investigated. Law (1980) argues that West Africans were largely familiar with the wheel as a means of transportation, even if they did not use it as frequently. The reasons for this are still unclear, says Robin Law. However, it is also thought that political geography is the reason why Africa did not follow the same path of state formation as Europe. But how did precolonial leaders in Africa dealt with state-building? I explore this part of the dissertation in the next sub-section.

6.4.1 Precolonial states formation in Africa

The combination of low population per square kilometre and the abundance of land seems to be one of the most popular explanations for the absence of territorial conflicts in precolonial Africa. Herbst (2000:20) argues that before the colonial occupation of Africa, the main reason for wars was the conquest of people and treasure rather than the struggle for territory. As in Europe, rulers in Africa exploited the hinterlands of their states, but unlike Europeans, they did so by capturing women, livestock and slaves through warfare. As a result, they did not seek close relations with the hinterland of their base. This is in stark contrast to the experience in Europe, where political rulers viewed the hinterland as a buffer zone and eventually established close relations with their backyards to collect taxes and wage war.

Given this contrast, it is easy to agree with James Newman, as Herbst reports (p.20-21), that the slave trade was an integral part of the process of state development in Africa, i.e., robbing the hinterland of its productive labour rather than attempting to control the area (Newman, 1995:129-130). However, this assumption reduces Europe's culpability in the hierarchical chain of responsibility given its long history in the tactics of divide and conquer. Charles Miller uses the story of the slave hunter Ali Kalikilima to explain how these tactics helped exacerbate existing divisions among the natives and consequently reinforced slave hunting by Africans themselves. No one expresses this dichotomy better than Chinua Achebe and his colleague,

who states that: "WHEN brothers fight to death, a stranger inherits their father's estate" (Achebe & Gikandi, 2003:30).

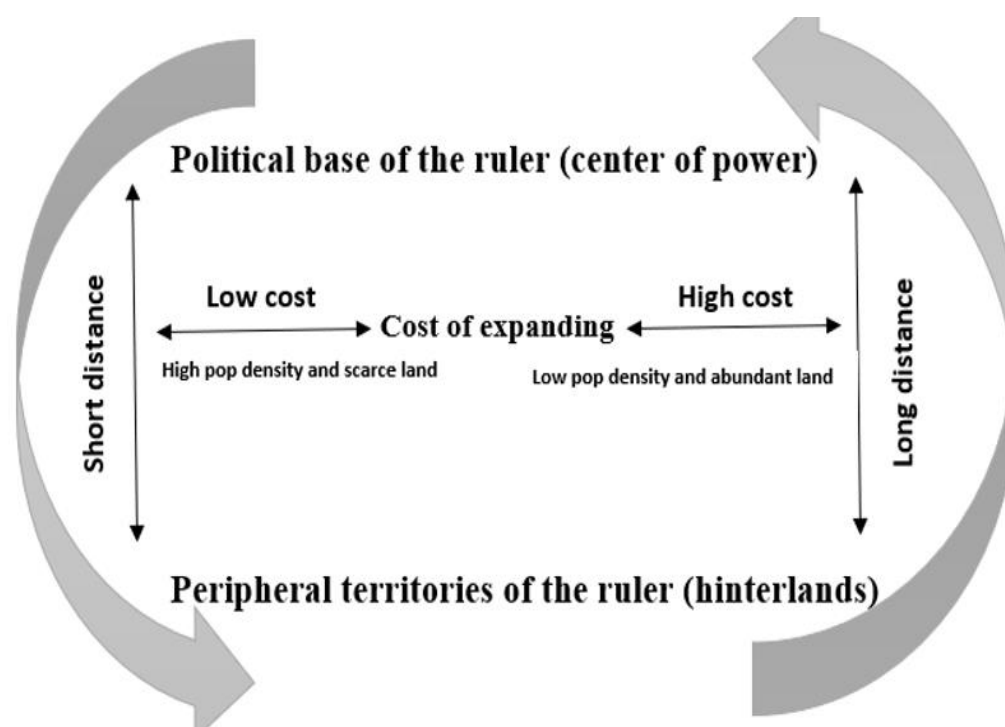
However, the fundamental question that arises here is how the rulers in Africa envisioned the expansion and consolidation of their power. The direct answer is that Africans, like many rulers in other parts of the world, had a different conception of power expansion than Europeans. Unlike the Europeans, the control of land as the basis for the exercise of power was never central to the calculus of precolonial state founders in Africa because land was abundant. The compulsion to extend rulers' control over people was more pronounced in precolonial Africa because they never faced the challenge of territorial conquest from competitors. In West African Yorubaland, for example, the emphasis was on subjugating and enslaving other tribes rather than appropriating their land (see Smith, 1988:99-105).

According to Herbst, understanding why territorial conquest initially played a minor role in the exercise and consolidation of power in Africa requires three basic explanations: the cost of expansion, the strength of the state buffer mechanism, and the nature of the state system. The costs of expansion are the costs incurred by a ruler who seeks to extend his authority beyond his base, in the form of the costs of deploying the military and other security apparatuses, the infrastructure costs of tax collection, and so on. The state buffer mechanism is a border policy that allows the ruler to deal with the pressures of the international system and increase his influence over a territory, while the state system, which strictly speaking comes from the context of the Peace of Westphalia, refers to the concept of an independent and sovereign territory (state) with an exclusive authority within that territory.

Every ruler has some costs to bear, such as the cost of deploying the army when he attempts to extend his authority beyond the base. The cost of such an endeavour depends on how far the ruler wants to extend his authority. Thus, the ruler incurs higher costs if he decides to extend his authority to a very distant area, as opposed to lower costs if the extension is closer to the base. At the same time, the consolidation of power over the territories that the ruler wishes to extend naturally depends on how the state system defines the boundaries of that territory.

However, consolidating power over a territory requires spending on security installations to protect the physical boundaries of the territory, telecommunications infrastructure, access to the newly acquired land in the form of building new roads and bridges, and establishing a local government agency to incorporate the periphery into the state. The following figure shows the costs associated with the expansion of power through the interaction between the ruler's political base and the periphery.

Figure 30: The cost factor of the expansion of political power



Source: Author's work based on the works of Charles Tilly and Jeffries Herbst (Tilly, 1975, 1990; Herbst, 2000).

Figure 30 illustrates the costs associated with the expansion of power. It shows the interaction between the center and the periphery. The center or political base is the place where the legitimate holder of political authority resides. Following Tilly (1990), I assume that the leader has a monopoly on the means of coercion. The periphery is the hinterland, a rural area that the ruler can invade. The hinterland does not have control over the state army, nor does it have sufficient means of coercion to resist pressure from the center. As the figure shows, the interaction between the two areas is associated with costs that depend on the distance between the two places. Thus, the financial burden is high when the distance is long and low when it is short.

I argue that the left side of the figure is associated with state formation in Europe. It has high population density per square kilometre, which is consistent with the literature. This led to frenetic competition for territories in Europe, as I described in the previous subsection. In this scenario, the costs of power projection are lower. In contrast, the right side of the figure is related to Africa, where population density is low and land is abundant. In this situation, the distance between the control center and the rural area is very long, so the cost of power projection to the periphery is very high.

Against this backdrop, the cost structure and calculus of precolonial state founders in Africa differs from those in Europe because war, which cost a lot of money and was the primary driver of state formation in Europe, was not originally fought in Africa over territory as it was in Europe, and its "ends did not leave the organizational and infrastructure that was typical in Europe" (Herbst, 2000: 24). Moreover, from a European perspective, the border concept was quite different to that of African rulers. Herbst argues that buffer mechanisms were virtually non-existent in Africa (ibid:52). This statement is somewhat confirmed by Asiwaju (1983:45), who claims that the concept of "frontier as boundary" was virtually unknown in precolonial Africa.

The concept of the frontier in the African view, Asiwaju argues, centres on the notion of the frontier as a zone or borderland. In line with the study by Ladis D. Kristof¹², Asiwaju argues that the concept always allowed for "mobility and flexibility," "whether it was a frontier of separation, contact, or transition" (Asiwaju, 1983:49). Following the same argument, he further argues that the territorial division of Africa in the 19th century as a result of colonialism was an "innovation" because it replaced the existing concept of the border as a zone with an "alternative definition as a boundary or line that inflexibly fixed the territorial limit of the state" (ibid:49). Similarly, Herbst argues that "societies without maps were hardly able to draw hard territorial boundaries" (Herbst, 2000:52).

Although the concept of territorial boundary was perceived differently in Africa before the division of the continent than in Europe, this does not mean that territorial demarcations never existed in Africa or that people had no interest in separating their living space from that of their neighbours. For example, in the first two chapters of his book, Adejuyigbe Omolade describes how the various Yoruba kingdoms demarcated their homelands from one another by natural and physical things such as watercourses, trees, mountains and valleys, or by construction mounds (Adejuyigbe, 1975: ch. 1-2; also cited in Asiwaju, 1978:45).

The concept of boundary in precolonial Africa can be divided into three types (Gaali, 1975:4-12; Asiwaju, 1983:45-48). The first type is what Gaali calls a "frontier of separation" or "frontier zone" Given the nomadic nature of ancient Africa, the territorial boundary of a community extended only to the place where the community could find the necessary food supplies at a given time. For example, the mental map of Ashanti land was estimated to be 42

¹² For a comprehensive understanding of the definition of Frontier as a zone of transition or as a separating factor, see Kristof, L. K. (1959).

days' travel from the capital city of Kumasi (Wilks, 1992:190). However, with the growth of ethnic groups, tribes began to draw clear physical boundaries between themselves in the form of neutral territories to which neither community laid claim and where each could pursue its usual activities without restriction.

In other cases, the "buffer zone" mentioned above was a forest, a mountain, canyons, deserts, etc. (Asiwaju, 1983). This type of territorial demarcation was common in Central Africa and in the Congo and Niger regions. Asiwaju claims that several states in the Sahara Desert and Sudan such as Borno, Darfur, Wadai, the Sultanate of Fung, as well as the Sokoto Caliphate had "buffer zones" that separated them from their neighbours. But some of these "separation frontiers" were actually inhabited by small but independent ethnic groups that remained uninvolved in the event of a dispute between the two separate states. This was the case between Darfur and Wadai and between Borno State and their Hausa neighbours (Gaali, 1975:7-8).

The second type of border described by Gaali is the "frontier of contact" which was ubiquitous in many parts of West and East Africa in the 19th century. The Yoruba and Dahomey states, as well as Buganda and the surrounding communities, can be cited as examples (Anene, 1970:5). The Fung Kingdom and Abyssinia were also separated by a "frontier of contact" (Crawford, 1951:80-82). Asiwaju (1983:47) argues that the existence of such boundaries was "identifiable between states of the same or different cultural dispositions," as they existed between several Yoruba tribes and Hausa states, and between the Jolof territories in West Africa and the Maasai states in East Africa.

As the population grew in the 19th century, communities began to expand and different types of political systems emerged (Gaali, 1975:6). This resulted in the need to draw a "boundary line" to separate the different communities. Gaali points out that in the minds of some "African political communities" the boundary between them was seen as a "frontier of contact" rather than a "frontier of separation" a circumstance he believes is exemplified by the "unstable border between the Ilorin province of the Gando Empire and the Yoruba states in southern Nigeria" Since both rivals laid claim to the "frontier zone," the presence of their military on the border was permanent, causing the border to shift from time to time depending on the strength of the protagonists (ibid:7).

The final type of precolonial frontier in Africa is the "frontier of transition" (Asiwaju, 1983). In this environment, communities with different cultural dispositions overlapped to the point where, as Asiwaju points out, it was impossible to determine or maintain a clear line of demarcation or any form of territorial distinction between the different socio-political units.

Such examples include the zones separating the Yoruba from the surrounding "Aja communities to the west, the Edo to the east, the Igala and the Nupe to the northeast, and the Bariba to the northwest" as Asiwaju point out.

In summary, border policies in Africa were quite different from those in Europe because of the small distribution of people over a large land mass. With the exception of a few places such as Ethiopia, the concept of a map was not yet developed enough to be generalized due to the abundance of land. Although territorial disputes did occur, as mentioned earlier, the reasons for these struggles were not primarily due to territorial conquest, which made it difficult to define a clear boundary between peoples. Allott (1971:11) emphasized that in the Dahomey and Yoruba regions it was difficult to define the political relationship between the central power and its periphery, and no clear boundary could be drawn between the different jurisdictions.

Crawford (1951:82), in his commentary on the boundary between the Fung kingdom and the Abyssinians, argues that "allegiance to one or other power consisted solely in paying tribute; and in the remoter fastnesses, it could only be enforced by periodical raid." (Herbst, 2000:52-53) points out that precolonial states in Africa "lacked the ability" to control the movement of people and money across their borders, and that many states did not have an official means of payment (currency) to make their physical presence felt far from the central power by demanding legal tender. I will argue that Africans did not lack the "ability" Herbst emphasised, but simply did not have the need for it, as lands were never a cause for struggle, but control over people was more important to them, as he himself noted on page 20 of his book.

In his 19th century work, Morel states that in the Congo, "it was a custom for a native chief to escort the white traveller to the boundary of his territory, and beyond that boundary it would not becoming for him to pass" Morel (1909:97). This shows that the concept of boundary not only existed in Africa, but was respected. Contrary to the Eurocentric view, there was no vacant land in the Congo region, as E.D. Morel states: "Each town – or series of towns forming a district acknowledging one head chief – knows the extent of forest over which from time immemorial it has been the custom to hunt. The boundary, perhaps a stream, perhaps a trail, a knoll, or more often a river, is the limit of the neighbouring tribe's territory" (ibid:97).

Unlike the Europeans, however, precolonial African leaders in the state-building period developed state systems based on cooperation rather than constant warfare (Herbst, 2000:26). The pattern of territorial control from centre to hinterland was diverse and often exercised through the building of loyalty rather than coercion or the creation of infrastructure as in the Fanti regions (ibid: 41). Unlike in Europe, international relations in the context of African state

formation were characterised by shared sovereignty, which allowed for the formation of multiple states. According to Herbst, there was little distinction between internal and external affairs as states negotiated with other states and sometimes with the parts that formed them (p.55). The state system in the precolonial period was adapted to local conditions and thus met the challenges of political geography, as Jeffrey Herbst puts it.

This is perfectly illustrated by Hodgkin (1973), cited in Herbst (2000:54), where he describes the above condition as an "international untidiness" which he believes can help understand: "why the Merinid sultan should on occasion address the ruler of independent Mali as though he were a vassal; why Idris Aloma should at the same time regard himself, and generally be regarded, as Khalifa and appear to accept the Caliphate of al-Mansur; why Umar, Shehu of Bornu, should describe himself as "the Mutawalli of Bornuh Province" when addressing the Pasha of Tripoli, just as almost three centuries earlier Mai Idris, while clearly recognized as the ruler of an independent state beyond the frontiers of the Ottoman Empire, can yet be described by Murad III as wali of the waliya of Bornu; why for a long period of time it should have been uncertain whether Masina under Shaikh Ahmadu fell within the Sokoto Caliphate or was a Caliphate in its own right". However, all this changed with the advent of colonization, a factor I discuss below.

6.4.2 Colonial states formation

There is no dispute in the literature that the states in Africa today have their origins in the colonial period. The question before us, therefore, is how these states came into being and what really changed as a result in the institutional structure of precolonial African states, for as I have argued above, Africa was not stateless. I have argued that the expansion of power and consolidation of leadership authority in Africa was different from that of state-builders in Europe. While European rulers maintained close ties to their countryside to protect the state against potential invaders, African rulers did not need to do so because land was abundant. People could simply move to the next location to escape oppression, as the Mfecane migration shows (Asiwaju, 1983:48).

However, with the advent of colonialism, everything changed, as Crawford (1994: 9-10) points out. He argues that despite the short duration of colonization (less than a century), compared to other historical events such as slavery, "political space, social hierarchies and divisions, and modes of economic production were completely reordered. The territorial grid, whose final contours emerged only in the dynamics of decolonization, determined the state units that achieved sovereignty and formed the contemporary system of African polities" The

"peasantization" of African economies can be cited as an example of this reordering (Ochonu, 2018:124-128).

The question of how colonial states came into being is relatively easy to answer. After the conclusion of the conquest in 1914, imperial powers began to replace African institutions with European ones, to varying degrees and on different timetables. In doing so, they changed the pattern of social organization across the continent. The African political system was replaced by a European administration (Cohen, 1967). Political control shifted from kings, village heads, and chiefs to governors general, governors, and district officials (Blanton et al., 2001). The traditional legal system was replaced by the European legal system (Robert and Mann, 1991). The education system and religious practices were replaced with Western education and religious beliefs (Frankema, 2012). Everything that was African was considered backward, and everything that was European was considered progressive.

My argument here is very simple. Europeans were not interested in the development of Africa, but in using the colonies for economic advantage and personal aggrandizement, just as the slave owner had no interest in emancipating the slave for economic reasons. In Section 4, I elaborated in detail on the colonial policies of the colonizers, namely those of France and Great Britain. Moreover, I concur with the majority of the colonial literature that imperial powers exploited their colonies for economic reasons (Rodney, 1972/2018; Boahen, 1989; Ochonu, 2018), but also keeping in mind the arguments of those who claim that Europe brought so much to Africa in the form of infrastructure and freedom from authoritarian leaders, thus ending internal wars (Gilley, 2017; Duignan & Gann, 2013). However, the question of whether the benefits of colonization outweighed the misery it brought to Africans need not be the focus here, although I tend to support the argument of colonization's negative effects as opposed to its alleged benefits.

I also argue that the colonial experiment in Africa did not lead to full institutional and cultural renewal, as it did in the Americas (Wolfe, 2006), but instead created an environment of institutional dualism (Owusu, 1975; Ekeh, 1975) that perverted precolonial social organization and contributed to the weakness of institutional performance especially the rule of law, a pattern that continues today. The literature on chieftaincy in Africa often asserts that traditional institutions and state administration coexist (Ray, 1996), although others argue that this is not always the case (Adotey, 2019). Using the example of Ghanaian chieftaincy, Ray argues that traditional authorities, commonly referred to as chiefs, form a parallel power to the state,

deriving their legitimacy and authority from precolonial roots, as opposed to modern states, which are a legacy of the colonial era (p. 181).

Similarly, Bennett (2005: ch.26) describes the role of traditional polities in South African governance. Along the same lines, Keulder (2001:150) points out that traditional leaders' control over rural areas in Namibia remains strong in the form of land and resource distribution, communal labor practices, and in some cases law and order. Furthermore, Englebert (2002: 190) points out that "traditional authorities do not exist as a consequence of their recognition and appointment by governments of sovereign states. On the contrary, they are recognized and appointed to traditional offices in accordance with customary law because those offices are legitimized by the beliefs of the people who expect them to exist in practice"

However, using the example of the chieftaincy conflict between the Sokpoe and the Tefle in Ghana, Adotey (2019:628) argues that "chieftaincy and the state are not always parallel institutions of governance that derive their legitimacy from different sources" However, he also concludes, that the former can be "both parallel to and dependent on" the latter. I argue that the dualistic development of traditional and modern state institutions has had and continues to have implications for institutional quality in Africa, particularly the rule of law, as it offers the possibility of institutional free-riding, a concept I will explore in the following subsection. Given that the rule of law is the foundation upon which all other institutions are built (United Nations, 2012), I argue that addressing this problem will help overcome the ongoing institutional crisis that afflicts much of the continent's nation-states.

In an examination of British colonization in Africa, Palagashvili (2018:277) notes that Victorian rule altered the "club-like and competitive features of chiefdoms and weakened the incentives of political leaders to be accountable to citizens." He argues that in precolonial West Africa, chiefdoms' incentives were aligned to be responsive to their subjects because of the "high degree of competition between governance providers and because political leaders were effectively the residual claimants on revenues generated from providing governance services." He further argues that British indirect rule accomplished this by reducing political competition and alleviating budgetary constraints on chiefs.

The above assertions are not based on mere words, but on numerous scholarly arguments and institutional patterns given the role the colonizers played in undermining African social organization and institutions during the formation of the colonial state. Jeffrey Herbst devoted an entire subchapter in his book to the limited ambition of the colonial state (Herbst, 2000: 77-80). It is important to remember that colonialism began long before Europeans formally decided

to administer their territories, especially in the hinterlands. Herbst argues that "little to nothing was done to formally control the interior" (ibid:62). This explains the reluctance of the British administration to fund the construction of new roads and the maintenance of existing ones in the Gold Coast colony, despite Earl Grey's recommendations.

The Earl believed, as he expressed in his 1853 letter, that road building, through which he hoped to consolidate and expand British authority, was an effective "instrument of civilization," a belief very similar to the concept of expansion of power in Article 8, Section 3 of the Constitution of the Fanti Confederacy (Herbst, 2000:42). For example, in 1870, the administration gave the Colonial Office in London a number of reasons why good roads should not be maintained, as these roads supported the exercise of power in the precolonial period (Wilks, 1989:12). This shows how eager the British were to wrest power from the Fanti leadership by disrupting the transmission channels of Fanti authority at the expense of development.

A similar effort can be observed after the formal occupation of the colonies through the systematic shift of political control from precolonial capitals to newly created centers of political control near the coast. This shifted power from the interior (which had been built up by African leaders over centuries to exert control over their territories) to the coast, where resource transfers were more favorable and insurgencies less likely. These newly created urban areas were not intended to serve as focal points for state formation, as they had in Europe, but rather to serve the interests of the colonizers, who, as Herbst notes, were simply not interested in "duplicating the power infrastructure that linked the city to the hinterland in their homeland" (Herbst, 2000:16).

Thus, in Nigeria, Lagos became the centre of political power instead of Ibandan, Ife, or Sokoto. Kumasi, the precolonial capital of Ghana, from which the king exercised his control over the entire Gold Coast area, was moved to the coastal city of Accra. Timbuktu, the city of universities and knowledge that historically inspired European exploration (Plesske, 2015; Schwartz, 2021:26), was replaced by the city of Bamako, which, as the capital of present-day Mali, was landlocked but had good connections to the Senegalese and Guinean coasts. New capitals such as Lusaka, Nairobi in Kenya, and Harare, formerly Salisbury in Southern Rhodesia (Zimbabwe), were all established far from the precolonial boundaries of the original political centre. Mauritania and Bechuanaland were governed by capitals located in entirely different colonies, Saint-Louis and Mafeking, respectively. Approximately 63 percent of precolonial

capitals were relocated to coastal regions (Herbst, 2000:16), essentially confirming the European intent mentioned above.

However, the relocation of precolonial capitals did not automatically lead to the exercise of power in the colonies. Coquery-Vidrovitch (1988:74) points out that every carefully studied case has shown that colonial penetration had barely begun by the early 20th century. Contrary to Jeffrey Herbst's account, however, the colonial administration's disinterest may have been due to indigenous resistance to colonial rule, which Coquery-Vidrovitch describes in detail (*ibid*: ch.9). A similar observation to Catherine Coquery-Vidrovitch was made by Arthur Lewis, who noted that there was little continuity in policy in the hinterland prior to the World War II except in the settler colonies (Lewis, 1965:14).

However, the reasons why Europeans showed little interest in bearing the costs of colonisation and failed to provide their colonies with adequate public goods have been explored by many authors (Frankema, 2011). Although the behaviour of the colonizers is largely characterised by economic exploitation, it would be interesting to examine the role that resistance to colonial rule played in the unwillingness of Europeans to invest in the development of their colonies to ensure structural change (Kodila-Tedika et al., 2016). Along the same lines, Young Crawford argues that the colonizer's priority was clear and he was only willing to provide minimal services, which he believes was reflected in the "imposition of a basic order and the creation of income streams" (Young, 1994:96-97).

Herbst stresses that it took quite a while for the Europeans to seriously consider the task of governing large parts of the conquered territories (Herbst, 2000:77). This is echoed by (Kirk-Greene, 1980:26), who points out that occupation after the conquest of Nigeria did not automatically lead to administration because "any serious move toward the next phase of the new colonial presence, namely the consolidation of civil administration and the introduction of plans for economic development, was overtaken by World War I"

Kirk-Greene further emphasized that the years 1919 and 1939, which can be seen as the peak of economic prosperity for both colonial subjects and the empire, can be characterized by a series of five-year cycles of alternating expansion and contraction (*ibid*:26). Similarly, (Suret-Canale, 1971:155) argues that before 1945, most significant changes occurred only in the capital cities and major commercial ports, while nothing changed in the rural areas. (Harms, 1987:5) made similar remarks in his study of the colonization of Nunu land. He notes that there were no drastic changes in the life of the "swamps" until 1926, when the Belgians consolidated their power over the area.

As cited in Coquery-Vidrovitch (1988:172), the "Congo was never conquered; large parts of our colony were never really taken possession of" Samuel Decalo points out that sixty years of colonial rule in Chad, unlike other countries in Francophone Africa, did not bring much change (Decalo, 1980:31). Herbst (2000:78) points out that even at the height of colonial rule, imperial power had only partially and incompletely penetrated rural areas. He further highlights that in 1939, only 1223 civil servants and police officers were responsible for administering a population of 43 million in British tropical Africa, a ratio of 0.000028 per native inhabitant.

In French West Africa, only 3660 civil servants were responsible for the administration of 15 million people in French West Africa, while there were even fewer civil servants in Equatorial Africa. Only 887 government officials were entrusted with the administration of 3.2 million people, while in Belgian Congo only 2384 colonial officials had the task of ensuring the administration of a colony of 9.4 million people. This shows once again how little the colonial powers cared about the places they once pretended to want to "civilize" If "civilization" does not mean exploitation, oppression, and neglect, it is difficult to understand what kind of civilization the Europeans were alluding to.

The writing was on the wall and clear for all to see. The colonizers did little or nothing to develop their colonies economically, politically, and culturally, and did just as little to improve the patterns of social organization they imported and imposed on their colonial subjects, but neither did they allow the existing ones to develop. The reasons for this inaction, which led to the apparent neglect of the colonies, have been the subject of extensive scholarly work, ranging from the necessity of extraction to the low presence of white settlers (Acemoglu et al., 2001). For example, (Herbst, 2000:78) argues that the low settlement of whites contributed to the remarkably slow expansion of the spatial reach of security forces in the colonial state.

Killingray, who is cited by Herbst in his book, also reaches the same conclusion by comparing the rudimentary policing of the colonial state to that in 18th and 19th century England. He argues that only places with Europeans and African educated elites benefited from a strong police presence and that those far from the main lines of communication and outside the cities experienced a "hit and miss affair" in terms of security protection, where "much was left to hazard." Herbst suggests that "nothing symbolizes the limited ambition of many colonial states and the failure to establish empirical statehood as much as the small size of the security forces that existed in the colonies through the terminal colonial period" (see citation in Herbst, 2000:79).

However, taxes played an important role in the formation of colonial states (Frankema & Waijenburg, 2014; Gardner, 2012, Frankema, 2011). Like the African kings and emperors who had preceded them, the architects of colonial states faced a growing challenge. They were confronted with the challenge of projecting power and consolidating territory in Africa (Herbst, 2000). Given the financial burden associated with the exercise of power and the consolidation of territories, which ultimately required costs in the form of administrative and fiscal infrastructures including the provision of public goods, the founders of colonial states were faced with the choice of either funding their efforts or making the colonies share in the financial costs of colonization.

Faced with these financial constraints, the European state founders opted for the latter and introduced a series of institutional changes to reflect their decision, a move that met with fierce resistance and led to a fundamental change in precolonial patterns of social organization. The role that taxes played in colonial state-building, and thus in the far-reaching distortion of institutional quality, particularly the rule of law, and its protracted consequences, is discussed in the following section.

7. Fiscal origins of colonial state formation and current institutions in SSA

The question of current development prospects in SSA is of interest to scholars and practitioners alike. However, the explanations published so far from a historical development perspective can be divided into two categories: Explanations based on endogenous factors and those based on exogenous variables. The former invoke geography to explain the prevailing differences in development outcomes among sub-Saharan countries that I discussed in Section 3 (Myrdal, 1968; Diamond, 1997; Sachs, 2000, 2001). The latter, however, advocate the "path dependence" theory, which contends that institutional changes brought about by European colonialism largely explain the current sluggish development of sub-Saharan Africa (Acemoglu et al, 2001, 2002; Bertocchi & Canova, 2002; Huillery, 2009; Djankov et al. 2003; Bairoch, 1993).

Against this background, I focus on the patterns of colonial tax extraction that evolved from the revenue constraints faced by European state founders at the outset of the colonial project. I argue that these constraints determine the extent of current institutional deficiencies in SSA, rather than the settlement effect invoked by Acemoglu and his colleagues. As I argued in the previous section, European fiscal institutions played a crucial role in the emergence of the current states and form of governance in Africa. It is also thanks to them that the institutional framework and institutional weakness that we observe in the former colonial territories emerged. In line with the current literature, I argue that European colonization explains much

of the current performance of the former SSA colonies through the institutions they inherited after independence, and hence the continent's developmental weakness.

According to many theories, these institutions have survived to the present day (Acemoglu et al., 2001). I focus on the French and British colonial institutions because both imperial powers had the most colonies in Africa. Most importantly, both pursued different policies to control and exploit their former colonial territories. It is against this background that I put forward my main hypothesis, which is based on the need for colonial revenue, a factor that I will explain in the following subsection.

7.1 Formulation of the main hypothesis

In contrast to the 'settler thesis' (Acemoglu et al., 2001), I draw on the pattern of revenue extraction by French and British administrations to explain the thesis of institutional quality and weak institutions in Africa (Bates, 2006, Menaldo, 2016; Alhassan & Kilishi, 2019). I develop my central hypothesis to support the argument that institutions matter for contemporary development in SSA and have historical implications. I argue that my hypothesis provides a good explanation for the much-discussed poor performance of African institutions (Acemoglu et al., 2001, 2002; 2012; Alhassan & Kilishi, 2019).

I focus on institutional quality, with particular attention to rule of law (ROL) as a measure of contemporary institutions, to examine its relationship to the financial constraints faced by Europeans at the beginning of the colonial project in SSA. I argue, in line with the existing literature (Acemoglu et al., 2001, 2002; Frankema, 2010, 2011. Gardner, 2012; Huillery, 2014), that Europeans were faced with the choice of either paying for the colonial project or making the colonies pay for it. I argue that the dilemma described above, which this dissertation examines through the lens of colonial tax collection, played an important role in the formulation of European colonial policy. These policies, in turn, led to the establishment of institutions that fostered exploitative and extractive dynamics throughout the colonial period. I argue that these institutions coexisted with indigenous institutions, a pattern of dualism that I argue, based on scholarly literatures in recent decades (Ekeh, 1975; Adotey 2019), still exists in Africa today. Against this background, I propose the following main hypothesis:

H₁: "The pattern of colonial tax collection explains current institutional performance, measured as institutional quality, with particular reference to the rule of law in the former British and French colonies in SSA ".

In examining colonial public finance, I seek to assess current performance in SSA in the context of institutional quality, with particular attention to ROL in the former British and French colonies. Theoretically, I follow a similar line of analysis – assessing colonial public finance – as (Acemoglu et al., 2001, 2002; Huillery, 2009; Frankema & Waijenburg, 2014; and Gardner, 2012). Empirically, however, my efforts mirror (Acemoglu et al., 2001) as I retrospectively assess the impact of the colonial period on contemporary performance but unlike the latter, my research is tailored to SSA.

Ewout Frankema and Marlous Waijenburg take a comparative look at colonial public finance to examine the importance of the identity of the colonizer for the development of fiscal institutions in colonial states in Africa. They conclude that both France and Britain pursued broadly similar fiscal strategies and support this claim with a variety of arguments. Their efforts suggest that colonial per capita income depends on geographical location irrespective of the identity of the colonizer.

However, they find a negative correlation between the size of the colonial budget and the shares of direct taxes in 1925 and see no serious differences in the development of colonial state budgets over time. The only visible difference they see between the two powers is France's decision to adopt a federal administration (AOF and AEF), which in their view was related more to financial constraints than to institutional organization alone.

However, my work differs empirically from the study by Frankema and Waijenburg. The authors examine the average tax revenues of 28 former French and British colonies in the years 1911, 1920, 1925, 1929, 1934 and 1937, while my study examines the average tax financing of 30 former French and British colonies in the periods 1907, 1908, 1909, 1910, 1911, 1912-1913 and 1919, 1920, 1921, 1922, 1923, 1924, 1925, 1926, 1927, 1928, 1929, 1930. I excluded the period between 1914, 1915, 1916, 1917 and 1918 in order to rule out any volatility effect possibly related to the First World War. Wartime can lead to abnormal fluctuations in tax revenues. I therefore considered it useful to exclude this period in order to capture the true extent of tax collection. Further details on the construction of my database are discussed in Part 2 of the dissertation.

Another difference between this work and that of Frankema and Waijenburg is the time period of the comparative analysis of the two studies. The study by Frankema and his colleague is limited to the years of the colonial period and only examines the relationship between colonial revenues and expenditures during the colonial period. They use the two historical variables as dependent (revenue) and independent (expenditure) variables. In contrast, I investigate the link

between two different periods, the colonial and the contemporary (postcolonial), by examining the impact of colonial government finances (independent variable)on contemporary institutional performance (dependent variable).

A similar empirical attempt, possibly reflecting the approach taken here, is Elise Huillery's study on the long-term effects of colonial public investment in French West Africa. Using district-level fiscal data, Huillery establishes a link between colonial investment patterns and contemporary investment patterns in regions that have historically benefited from these colonial investments. One distinct difference between Huillery's study and the efforts of this dissertation, however, is the regional aspect. Huillery's study focuses on the West African region, while my study examines the fiscal impact on contemporary institutions for the entire French and British colonies. In addition, Huillery examined the distribution of public goods at the district level, while the present study examines the impact of revenue and expenditure of the entire colonial state on existing institutions.

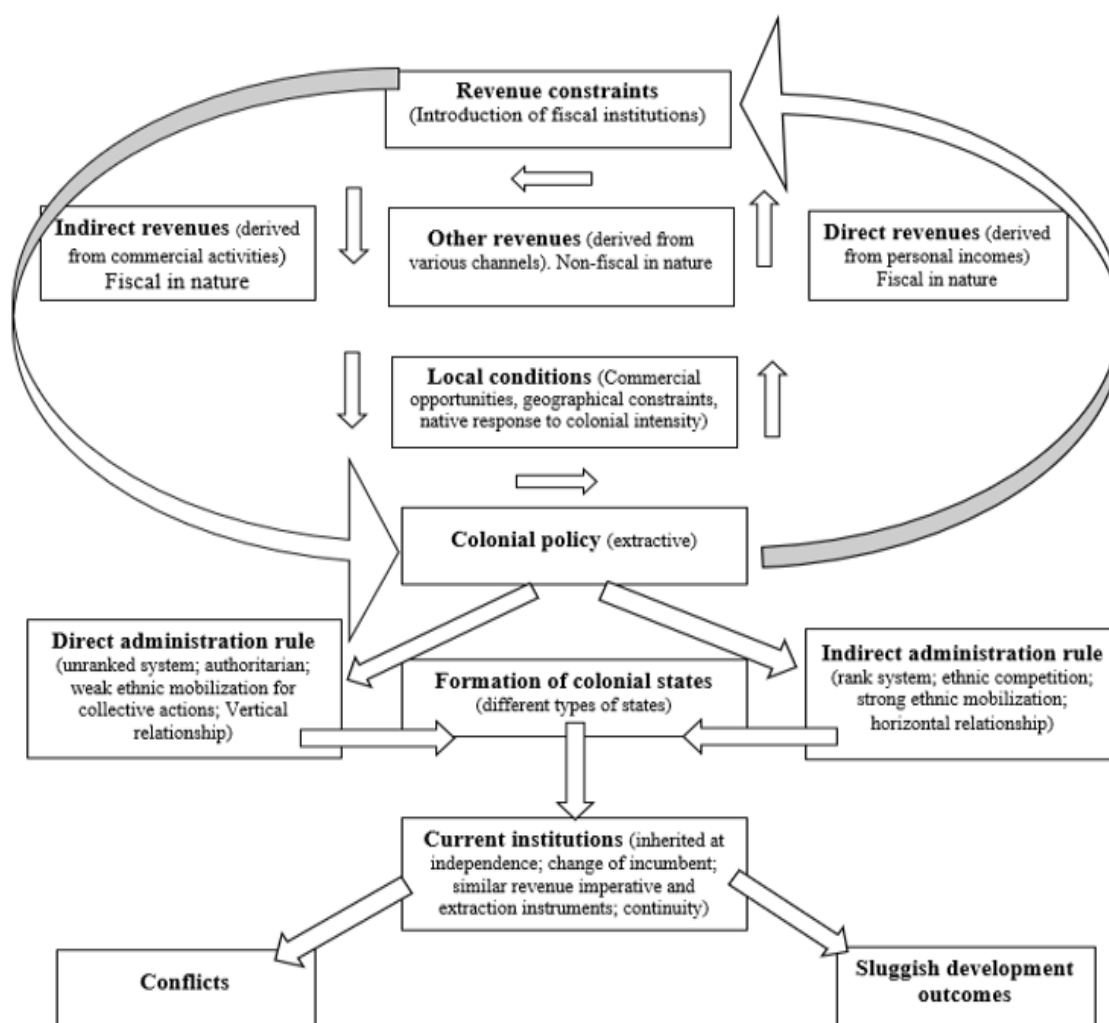
The study that also falls theoretically within the scope of my analysis is Leigh Gardner's on taxation in colonial Africa. Gardner argues that the revenue constraints of imperial powers led to unpredictable dynamics that affected the political and economic institutions that Africans adopted after independence. Despite her plausible investigation, Gardner's research is purely theoretical, which is one difference between her study and the scope of the present study. In addition to my theoretical investigation, which is consistent with Gardner's work, I provide empirical evidence (econometric regression) that European colonization in the context of colonial tax still explains current performance through institutional channels.

I argue that the pattern of tax collection that defined European colonial policy contributed to the creation of institutions that were detrimental to institutional quality in Africa, especially the rule of law, an institution that is fundamental to democracy. By institutional quality, I mean the capacity of formal institutions (e.g., constitutions, treaties, forms of government, etc.) to effectively and reliably secure human interaction in society through the formulation, implementation, and enforcement of public services (see North 1990, 1991; Lowndes 1996; Farrell & H  ritier 2003).

However, the following figure illustrates the impact of colonial state-building on contemporary institutions in SSA. The illustration shows how today's institutions in SSA came into being. The upper panel shows the colonizer's need for revenue at the beginning of the colonial project. Although most of the military budget for the conquest was raised by the conquerors themselves, the cost of effectively occupying the colonies represented a major financial commitment that

the architects wanted to avoid. To this end, they used various means to generate revenue. This is illustrated by the following three cases below the top panel. Depending on local circumstances, colonizers used direct and indirect taxes, or in some cases both, to cover the costs of managing and securing the colonies. Non-tax revenues were also collected to supplement the budget. However, the British and French administrations adapted tax rates and forced labor to local political and economic conditions in the colonies (Frankema & Waijenburg, 2014).

Figure 31: Anatomy of colonial state formation and current institutions



Source: Author's work based on Various colonial literature cited throughout section 4 and 5.

The middle part of the diagram shows how financial constraints influenced the policy of the imperial powers. These policies were essentially extractive and met with constant resistance from the Africans. Two important policies are linked to the revenue dilemma. First, colonial rulers used a direct or indirect form of administration, or both, depending on the circumstances.

The French are known for their direct method, the British for their delegation of authority. As local circumstances strongly influenced the decisions of the colonial rulers, historical evidence shows that both the French and the British used both methods at some point during their colonial period (Frankema & Waijenburg, 2014).

The bottom panels of the figure show the current institutions in SSA and the different outcomes. These institutions were inherited from the former colonial masters at independence. According to the social science literature, these institutions functioned poorly, leading to the various trends we observe today. One of the most striking changes during the transition from colonization to independence is the change of personnel in the former colonial government. I argue that at this critical juncture, the new incumbents faced the same revenue constraints as the builders of the colonial state (Cooper, 2012).

Like their predecessors, the new officeholders needed money to ensure the functioning of the administration they had taken over and to provide public goods. This dictated the nature of their policies. Unfortunately, the new leadership used the same tools and practices as the previous incumbents. Whether this was due to inexperience or lack of expertise or whether they were simply under the control of their previous masters is another question altogether, which this dissertation will not discuss. In addition to the revenue problems of his predecessor, the new incumbent inherited the dualistic institutional framework of his former "master". I argue that this pattern has stood the test of time and explains much of the situation on the continent. For the purposes of this thesis, however, I focus exclusively on the institutional aspect of the problem.

It cannot be denied that Africa was confronted with a number of problematic conditions at the beginning of independence. These included inadequate infrastructure, energy dependence, economic dependence, novice and fragmented leadership, a lack of national identity and, above all, weak institutions, especially a weak and fragmented political landscape - a pattern that continues to this day. The decolonization of French Africa divided the political elites into two groups. On the one side were those who sought complete independence from the French, such as Sekou Touré in Guinea. On the other side were those who sought autonomy in close cooperation with France, such as Félix Houphouët Boigny in Côte d'Ivoire (O'Brien, 1965).

Political institutions determine the rules by which a society is governed (Acemoglu & Robinson, 2012:87), whether by the rule of law or by the rule of men, as stated in an aphorism by Aristotle (Sempill, 2020). These institutions determine the way in which a country is governed and thus the state of its development. Schumpeter's concept of "creative destruction"

is one of the best examples of why political institutions matter for a country's prosperity. It states that technological change during a broad economic expansion has a destructive effect that can lead to a shift in economic and political power, as there is a close relationship between these two variables (Tilly, 1993:16). In this sense, a political leader will have no interest in such changes as long as they disempower him. An example of this is the execution of the inventor of the ribbon loom in Prussia in 1957 by the authorities of the administrative district of Danzig. In the next subsection, however, I will examine the institutional aspect of the imperial power's need for revenue.

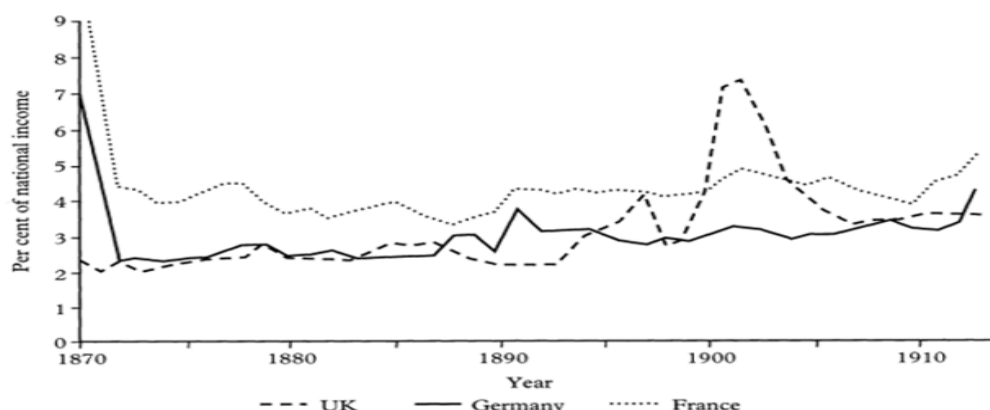
7.2. Colonial revenue constraints, Metropolitan policy choices and the formation of fiscal state in Africa

An 'imperial overstretch' such as European colonisation requires considerable financial resources to ensure effective occupation – a standing military/police force and various administrative infrastructures (Kennedy, 2010). This statement raises a fundamental question when considering the frenetic expansion of European empire since the invasion of the New World. In line with existing research (Huillery, 2014), I ask the question: how much does a project like the European expansion into Africa can cost?

Are the benefits great enough to justify such an undertaking? This dissertation will not attempt a comprehensive examination of these questions, but it will address an important aspect of colonial costs. It will look at the financial constraints faced by the architects – Britain and France – and the emergence of today's nation states in Africa. I will also widen the scope of my inquiry to include the role of the colonial tax in the emergence of the colonial states, and by extension the present states in SSA, as well as the broader political implications.

The question of the costs and benefits of empire-building divides scholars (Offer, 1993; Huillery, 2014). For some, the benefits to the colonisers outweigh the costs (Edelstein, 1994; Amin, 1971, 1973/1987); for others, the costs are greater than the financial benefits (Davis & Huttenback, 1986; Fitzgerald, 1988). Davis and Huttenbach estimate the cost of British involvement in colonial defense spending at 20 percent more for the British taxpayer. Marseille (1984) estimates that colonial public finances in the 1910s amounted to 7 percent of the public expenditure of the motherland. He also estimates that subsidies for trade deficits in the colonies amounted to about 8 percent of French expenditure in the 1920s and 9 percent between 1945 and 1962, although Huillery (2014:33) finds no such payments by "l'Hexagone". The following figure shows the cost of overseas military interventions by France, Britain and Germany between 1870 and 1910.

Figure 32: Share of military and naval expenditure in national income (constant 1906): UK, Germany and France, 1870-1913.



Source: Choucri and North, "Nations in conflict: data on national growth and international violence for six European major powers, 1870-1914" (1975), *Inter-university consortium for political and social research* (Univ. of Michigan), ICPSR no. 7425. It is not stated which measure of national income was used.

The graph shows a decline after 1870 from 9 percent of GDP to 5 percent for France and from 7 percent of GDP to 2.5 percent for the UK. Faced with rising costs, the UK and France promoted a policy of self-sufficiency in the early 20th century (Gardner, 2012). For example, Marseille (1984/2010) and O'Brien (1988), as well as many others, share the view that colonial public expenditure on health and education was a burden on British and French taxpayers. In contrast, Huillery (2014) argues that colonization was cheap for France in West Africa and that the French contribution to the development of the colonies was very small until independence. Huillery estimates the cost at only 0.29 percent of France's annual expenditure, of which 0.24 percent was spent on the military and 0.05 percent on administration. Nevertheless, both France and Britain wanted to shift the financial burden of administering their colonies away from their taxpayers and let the colonies pay for their own administrative and security costs. This endeavour shaped the policies of the colonial era and the formation of the colonial states.

7.3 The role of colonial tax extraction in shaping colonial policies and the formation of colonial states

It is important to understand the extent to which the colonial fiscal imperative contributed to the shaping of colonial policy and thus to the emergence of today's institutions. To this end, it is desirable to assess the costs of extending power over a sparsely populated area such as Africa. According to the "land abundance theory", Africa has long been characterized by low population density (Austin, 2008). This view has been used by many to explain the disparities in wealth between the nations of the world (Acemoglu et al., 2001). Herbst (2000: 13), for

example, estimates Africa's population per square kilometer in 1900 at 4.4 people – only 5 to 7 percent of the world's population – compared to 38.2 people per square kilometer in South Asia, 45.6 in China, and 62.9 in Europe. Early estimates by the author, based on data from John Durand, suggest that Africa accounted for 6 to 11 percent of the world's population in 1750 and only 11 percent in 1997. The following table shows the distribution of the world's population between 1750 and 1950.

Table 3: Distribution of World Population from 1750 – 1950.

Areas	Population (millions)						Annual rate of increase (per cent)				
	1750	1800	1850	1900	1950	2000	1750–1800	1800–1850	1850–1900	1900–1950	1950–2000
World total	791	978	1,262	1,650	2,515	6,130	0.4	0.5	0.5	0.8	1.8
Asia (exc. U.S.S.R.)	498	630	801	925	1,381	3,458	0.5	0.5	0.3	0.8	1.9
China (Mainland)	200	323	430	436	560	1,034	1.0	0.6	0.0	0.5	1.2
India and Pakistan	190	195	233	285	434	1,269	0.1	0.3	0.4	0.8	2.2
Japan	30	30	31	44	83	122	0.0	0.1	0.7	1.3	0.8
Indonesia	12	13	23	42	77	250 ^a	0.2	1.2	1.2	1.2	2.4
Remainder of Asia (exc. U.S.S.R.)	67	69	87	118	227	783	0.1	0.5	0.7	1.3	2.5
Africa	106	107	111	133	222	768	0.0	0.1	0.4	1.0	2.5
North Africa	10	11	15	27	53	192	0.2	0.5	1.2	1.4	2.8
Remainder of Africa	96	96	96	106	169	576	0.0	0.0	0.2	0.9	2.5
Europe (exc. U.S.S.R.)	125	152	208	296	392	527	0.4	0.6	0.7	0.6	0.6
U.S.S.R.	42	56	76	134	180	353	0.6	0.6	1.1	0.6	1.4
America	18	31	64	156	328	992	1.1	1.5	1.8	1.5	2.2
Northern America	2	7	26	82	166	354	—	2.7	2.3	1.4	1.5
Middle and South America	16	24	38	74	162	638	0.8	0.9	1.3	1.6	2.8
Oceania	2	2	2	6	13	32	—	—	—	1.6	1.8

Source: Durand, J. D. (1967).

As mentioned in section 6, Europeans faced the daunting challenge of extending their colonial authority after conquest to an area that amounted to about 18 percent of the world's land mass (Herbst, 2000:11). Given the existing competition between the imperial powers and the binary choices each had to make in order to secure and control the colonies, this would have required an enormous commitment of manpower and bureaucratic infrastructure, which of course would have involved significant investment. The financial burden of such an operation was very high, not to mention the enormous difficulties of generating revenue in the colonies (Frankema & Waijenburg, 2014). Drawing on Frankema & Waijenburg (2014) and Gardner (2012), I argue that it was an enormous challenge for the colonizing powers to meet the revenue requirements for the maintenance of their colonies.

Before the Western occupation, surplus taxes were paid in kind, which did not help to meet the cash requirements for the salaries of colonial government employees. According to some accounts, this accounted for more than 60 percent of the total colonial budget (Frankema, 2011; Frankema & Waijenburg, 2014; Gardner, 2012). Frankema & Waijenburg (2014) argue that trade revenues were initially so small that it did not matter, which further explains the

introduction of the colonial policy of "peasantization" (Ochonu, 2018). The shortage of labor and the nature of land tenure limited revenues from taxable subsistence farming. Similarly, Leigh Gardner also highlights the budgetary concerns of imperial powers, which she argues "shaped public policy at every level, from colonial capitals to district administrations operating in isolated rural settings" (Gardner 2012:1). She also highlights the temporal and energetic challenges of tax collection and its impact on relations between Africans and colonial administrators, which I will discuss in more detail in the next subsection.

In summary, Gardner argues that 1) it is difficult to properly analyze colonial policy without understanding colonial revenue constraints. 2) colonial tax policy reflects the type of economic structure that developed in each colony, and 3) the tax system helps to understand the purpose and impact of British imperialism in Africa. Gardner's first assertion emphasizes the centrality of the budgetary imperative to any policy decision in colonial Africa. That is, how can a particular policy meet revenue requirements? Gardner's second contention points to deliberate fiscal strategies to support the rapid expansion of economic policies that helped the colonies meet the costs of self-government. Finally, her third argument demonstrates the deliberate attitude of Europeans in creating extractive states.

For dependency theorists such as Walter Rodney, who take a different view from colonial development theorists (Hopkins, 2020), practices such as the peasant economic system retarded Africa's economic development. Rodney argues that Europe underdeveloped Africa by drawing and trapping the continent into a colonial cash economy that focused on the export of natural resources. This has kept the continent in a perpetual state of dependence on Western economic interests, a negative balance of trade and volatility in international markets, according to many. These characteristics are closely linked to poor economic performance (Singer, 1950; Prebisch, 1950).

Europeans viewed African production systems as subsistence-based and without "vent surpluses" and therefore sought to replace this practice with a market-oriented system (Hopkins, 2020). However, this characterization is at odds with historical evidence of trans-Saharan trade dating back to the 5th century BC (Law, 1967). Zeleza (1997) refers to the existence of plantation systems in the coastal regions of East Africa, in Ethiopia and in the Sokoto Caliphate. Salau (2011) makes similar claims, pointing to the cultivation of staple crops for subsistence and commercial purposes in Fanisau and several emirates in northern Nigeria prior to the agricultural transition promoted by British colonization. He also refers to the existence of large-scale agricultural plantations with slave labor in Muslim-dominated North and West Africa.

Lovejoy (2004) associates the term 'gandu' in Kano with slave labor, but also with a large-scale plantation system (also cited in Salau, 2011).

Britain and France essentially enforced the production of export crops in their colonies to serve their economic interests and collect taxes (Ochonu, 2018; Hopkins, 2020). For example, after the conquest of Nigeria, Britain promoted the cultivation of peanuts as the main crop for European markets. In light of these policies, I note on the one hand that French and British colonial economic policies, which grew out of fiscal constraints, reduced the colonies to producers of natural resources with little or no processing. I call this the upstream economy. On the other hand, the colonizers' mother country became a supplier of manufactured goods, what I call the downstream economy. This left little room for diversification of the colonial economy and explains the post-colonial inequality and economic structure we observe (Bigsten, 2018). A review of recent economic literature on SSA (Austin, 2015) shows that this pattern continues to affect the performance of postcolonial states in SSA. The following table provides an overview of the type of economy that has emerged from colonial policies in SSA.

Table 4: Comparative cross-colonies per capita average variation and economy types.

Country	Geographic feature	Colony	Colonial economy type	per capita ratio DT / TR	per capita ratio IDT / TR	per capita ratio OHT / TR	Per capita Total revenue
Benin	Caostal	French	Cash crop	0.64	0.12	0.24	4.96
Burkina. F	Landlocked	French	Cash crop	0.88	0.08	0.05	1.3
Cameroon	Caostal	French	Cash crop	0.46	0.44	0.10	2.05
Côte d'iv	Caostal	French	Cash crop	0.73	0.11	0.16	5.35
Guinea	Caostal	French	Cash crop	0.87	0.05	0.08	6.54
Mali	Landlocked	French	Cash crop	0.79	0.11	0.10	5.88
Mauritania	Landlocked	French	Cash crop	0.77	0.05	0.18	4.01
Niger	Landlocked	French	Cash crop	0.81	0.07	0.12	1.95
Senagal	Caostal	French	Cash crop	0.75	0.12	0.13	9.48
Togo	Caostal	French	Cash crop	0.30	0.54	0.16	2.18
Gambia	Caostal	British	Cash crop	0.12	0.71	0.17	41.96
Ghana	Caostal	British	Cash crop	0.02	0.62	0.36	38.07
Nigeria	Caostal	British	Cash crop	0.14	0.50	0.36	8.22
Sierra L	Caostal	British	Cash crop	0.10	0.60	0.31	26.41
Tanzania	Caostal	British	Cash crop	0.39	0.27	0.33	6.33
Uganda	Landlocked	British	Cash crop	0.54	0.31	0.15	10.62
Congo. Brz	Caostal	French	Concession	0.90	0.03	0.07	4.38
Gabon	Caostal	French	Concession	0.64	0.03	0.32	5.94
CAF. Rep	Landlocked	French	Concession	0.77	0.15	0.08	1.71
Kenya	Coastal	British	Labour res.	0.23	0.19	0.58	1.76
Lesotho	Landlocked	British	Labour res.	0.51	0.41	0.08	83.69
Madagascar	Coastal	French	Labour res.	0.58	0.27	0.16	20.22
Malawi	Landlocked	British	Labour res.	0.53	0.35	0.12	5.38
South Africa	Coastal	British	Labour res.	0.05	0.36	0.59	43.14
Zambia	Landlocked	British	Labour res.	0.45	0.39	0.16	33.91

Source: Author own work. The author's work is based on data from the Gallica Digital Library and the Colonial Blue Book in the British Online Archives. All data are converted to French francs and calculated on the basis of tax revenue per capita. DT = direct taxes per capita; IDT= indirect taxes per capita; OHT= other direct revenues per capita; TR = total revenues per capita.

In Table 4, three types of colonial economies are distinguished, based on the categorization of (Amin, 1972; and Oliver & Atmore, 1967/2005). Amin divides contemporary Africa into three micro-regions whose foundations date back to the colonial period. Oliver and Atmore build on Amin's study, albeit with a slight deviation. I use the description of these two studies to construct a table that shows the patterns of tax collection and geographical location of British and French colonies between 1907-1913 and 1919-1925. As the table shows, there is a close relationship between tax collection and colonial policy. This relationship gave rise to the emergence of three types of economy during the colonial period: the cash crop economy, the concession economy and the labour reserve economy. The table shows that a high proportion of direct taxes were levied in the inland colonies, while more indirect taxes were levied in the coastal areas. Against this background, the pattern of tax collection is discussed in the next subsection.

An example of the cash crop model is the peasant economy introduced by the French and British in their colonies. It is essentially agricultural and dominated by European trade counters and later by state marketing boards (Mkandawire, 2010). This system resulted in a monopsony where a single buyer controlled the purchase of all tradable goods in the colonies. According to Bauer (1954), these monopolists were ruthless and notorious for charging ridiculous prices. This behaviour was encouraged by the 'vent-surplus hypothesis," which held that low commodity prices helped to syphon off the surplus from peasant agriculture.

Taxes in the cash crop economy are usually levied through indirect taxes via trade counters or by collecting poll taxes /capitation taxes from the local population. Since taxes were compulsorily paid in the colonial currency, local farmers were forced to produce the staple crops demanded by the monopolists (the colonial commodity traders). According to historical accounts, there are no restrictions on the movement of labor in the commercial economy, but the movement and cultivation of crops are highly regulated (Mkandawire, 2010). This means that farmers can only grow the staple crops that the colonizer wants.

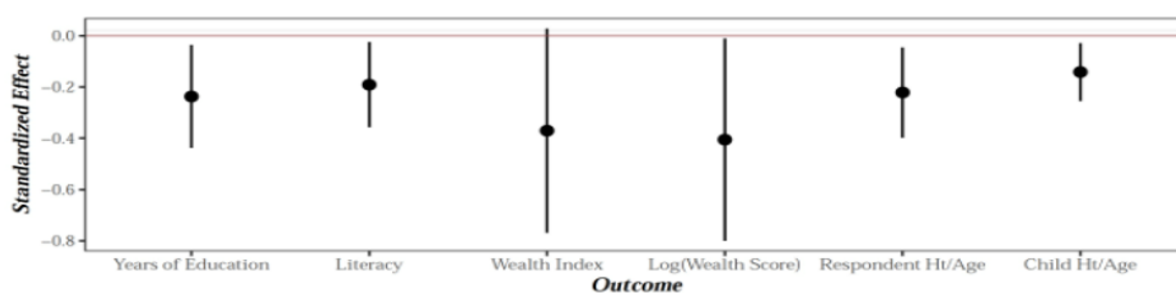
In this form of integration, known in the French colonies as "l'économie de traite", the colonial administration politically supported the cooperating groups in the appropriation of land at the expense of other groups. It also organized internal migration from impoverished localities to meet the demand for labor in the plantation areas. When this cooperation proved unsuccessful, the colonial rulers resorted to coercive measures to secure local labor, according to Amin. One of the many consequences of the plantation economy is the development gap between the

coastal areas and the rest of the colony, which, according to Amin, condemned Africa to develop only along the coast.

The concession economies relied heavily on forced labor. A clear example of this is the Belgian colony of Congo, which Leopold II ran it like a private company. According to (Coquery-Vidrovitch, 1985:358), the Belgian Congo was a form of incorporation into colonial rule that "depended on taxation and plunder rather than production and investment". The system is known for mining rather than the exploitation of primary commodities (Mkandawire, 2010). It restricted the development of commercial agriculture (Rodney, 1990; Betts, 1990). Thus, France and Britain, like other colonial powers, awarded large tracts of land to private companies for mining or for the cultivation of rubber trees on large plantations whose main purpose was to extract the natural resources of the colonies. The concession economy is characterized by indirect rule, extreme violence and atrocities (Lowes & Montero, 2021).

Empirical evidence shows that regions with such an economic model have persistently poor educational and economic performance. Using data from rubber concessions in Congo, Sara Lowe and Eduardo Montero examine the long-term impact of this system on development in the Democratic Republic of Congo. The study shows that people living in former concession areas have significantly poorer educational and wealth outcomes than those living outside the concession areas. The former has on average 1.3 years less of schooling and 25 percent less wealth. The following figure illustrates this pattern.

Figure 33: Effect of the development outcome on living within former concession area



Source: Lowes, S., & Montero, E. (2021). Concessions, Violence, and Indirect Rule: Evidence from the Congo Free State. *The Quarterly Journal of Economics*, 136(4), 2047-2091.

The final category of the colonial form of integration of Africa into the Western economy, however, is the system of the labor reserve economy. One of the characteristics of this form of economic integration is the high proportion of European settlers in the total population compared to other integration systems (Mkandawire, 2010). It is highly racialized, segregated and labor-intensive, with white farmers using and exploiting the cheap labor of the indigenous population, who are confined to poor townships (Phimister, 1974; Van Onselen, 1976;

Meillassoux, 1981). However, this form of integration was not necessarily specific to a particular country. Certain colonies exhibited different forms of integration models. Mozambique, for example, exhibited the characteristics of a labor reserve economy and a concession system (Hinderink & Sterkenburg, 1987).

Another feature of the labor reserve economy is that formal labor markets and the migrant labor system are closely linked to white-owned mining and plantation concessions (Mhone, 2000), tying the indigenous population to permanent employment in these concessions. To perpetuate this vicious cycle, the administration enacted laws or took measures such as "disruption of African farmers' agriculture, discrimination in employment, criminalization of informal indigenous activities in urban areas, political regimentation, control of migration flows" to prevent an alternative source of income for the indigenous population (Mkandawire, 2010). This stance is justified by the study of Moore (1955) who agrees with the "target worker theory" which describes the irrational behavior of workers and claims that higher wages due to leisure time lead to lower labor supply.

Unwilling to pay for the upkeep of their colonies in Africa, France and Britain introduced a system of taxation to raise revenue and enforce institutions to control and exploit their territories during the colonial period. In the historiographical literature, European institutions are described as extractive and detrimental to African development. Acemoglu describes the colonial tax system as one of the most extractive and burdensome institutions introduced by Europeans, the implementation of which led to constant resistance from Africans (Acemoglu et al., 2001). To ensure a steady inflow of tax revenue, the imperial powers enacted laws that compelled the natives to participate in the colonial economy to fulfill their tax obligations and whose evasion was punishable by imprisonment (Ochonu, 2018:126).

Europeans developed measures such as harvest quotas imposed on traditional chiefs or community leaders to force them to include their people in the colonial export economy. If they did not comply, they lost their privileged position (ibid.). In other cases, Europeans distributed seedlings and free agricultural services to the natives to encourage them to participate in the production of agricultural products for export. In northern Nigeria, for example, buyers of staple crops adopted a strategy of paying cash in advance against future harvests, which kept African farmers in perpetual debt.

In nutshell, revenue was essential to colonial plans, and its extraction led to an irreversible institutional dynamic that began at independence (Gardner, 2012:1-9). The drive to balance the budget characterized all aspects of French and British policy. Without revenue, it would have

been impossible to create the administrative infrastructure necessary to control and exploit the colonies. With this in mind, I argue that colonial tax revenues, from which all colonial operating revenues were derived, determined the policy decisions and thus the institutions that imperial nations were willing to foster. The severity of the colonial experience in SSA depended on the form of tax extraction and public expenditure in each colony (ibid.). In turn, the nature of the tax system and the degree of exploitation in the colonies depended on differences in local factor endowments (Frankema & Waijenburg 2014).

Drawing on the patterns of colonial taxation (ibid.), I also note that the colonial tax system was not adapted to local conditions, an observation consistent with Berkowitz (2003). Its implementation, which met with fierce resistance, led to numerous cases of abuse. Taxation was the only way for the colonial rulers to raise money to ensure the self-sufficiency of the colonies. European tax policy, especially French policy, was enforced almost unilaterally without consultation or adequate representation of the natives. It was arbitrary, which I argue led to the establishment of repressive institutions such as a legal system to legitimize it and a colonial police force to enforce it. This undermined African institutions, especially the rule of law, and shaped the economic and institutional structure we see in SSA today.

Since the payment of taxes was compulsory and tax evasion was punishable, Africans were forced to participate in an exploitative colonial economic system. They were forced to participate in this system because they had to pay taxes and the taxes were only accepted in the colonial currency. They had little choice. In the British possessions they were paid in pounds sterling, in the French territories in French francs. However, the Africans firmly rejected the European institutions, especially the tax system, although some of them cooperated with the colonial authorities (Frankema & Waijenburg 2014).

The main argument developed in this subsection focuses on the revenue constraints faced by the British and French colonial administrations in relation to tax collection in order to examine contemporary institutional performance in the former SSA colonies. The empirical part of this thesis focuses on the quality of institutions, with an emphasis on the rule of law, in order to assess the impact of European colonization SSA. In this context, at the beginning of this thesis, I raised the question of whether postcolonial institutional change in SSA has a colonial origin. In subsection 7.1, I addressed this question by stating my main hypothesis, namely that the pattern of colonial revenue extraction explains contemporary institutional performance in the former British and French colonies in SSA.

In light of this statement, I can confidently assert that the colonizers' need for revenue to finance the colonial project played a fundamental role in the outcomes of colonialism in SSA. This was the case from the beginning and throughout the occupation. Rudolph Goldscheid argues that "the budget is the skeleton of the state, stripped of all misleading ideologies". The most important element of a budget is the revenue, as it finances expenditure. Revenues, especially taxes, are therefore fundamental to the functioning of a state as they have been the main source of a country's traditional resources since the inception of the nation-state (Amirthalingam, 2012). They ensure the provision of essential public goods (Salanie, 2003). In the following subsection, I discuss colonial fiscal instruments, local resistance and the outcomes of colonial strategies in the former British and French colonies.

7.4 Colonial, tax instruments, local resistance, and the outcome of colonial strategies

Drawing inspiration from Ernest Hemingway's view of the Second World War and its aftermath, where he said: "Today is only one day in all the days that will ever be. But what will happen in all the other days that ever come can depend on what you do today." The Berlin Conference emerges as a critical juncture in Africa's history that will last forever. The decisions taken by the European powers at this conference had a profound and lasting impact on the development of African nations. They marked the onset of the formal occupation and subjugation of the entire continent.

On closer inspection, it becomes clear that the colonial fiscal experiment, triggered by the compulsion to raise revenue against the backdrop of conquest, had a decisive influence on the policies and institutions introduced by the Western powers. These policies were characterized by repression and institutions, especially the tax system, which proved to be extractive (Acemoglu et al., 2001; Frankema & Waijenburg, 2014; Gardner, 2012). In essence, the consequences of the Berlin Conference continue to have an impact today, shaping the development of African states and underscoring the lasting legacy of colonial decisions. In the following subsection, however, I will highlight various instruments that were used by the colonizers to raise money to run the colonies.

7.4.1 Colonial revenue instruments – Tax and non-tax

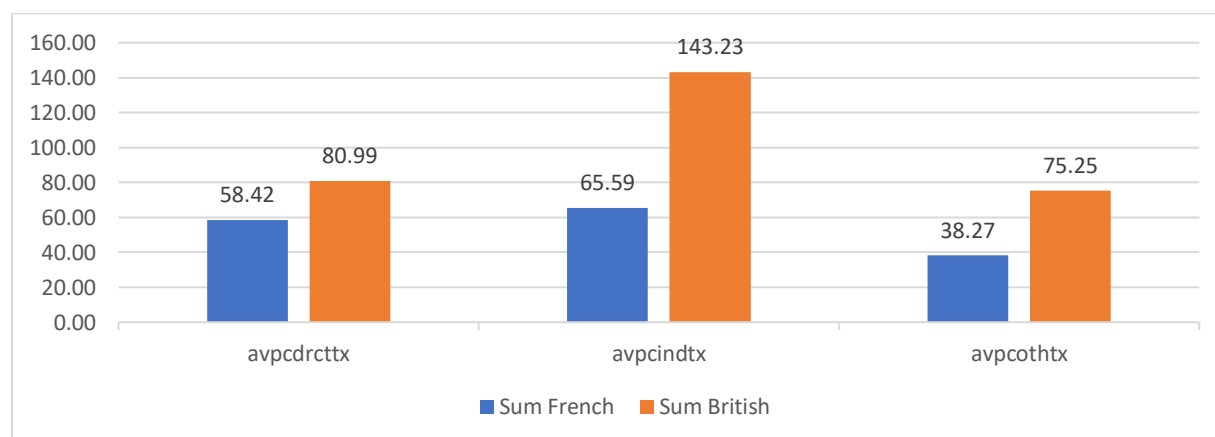
The introduction of colonial taxes played a decisive role in European colonialism in sub-Saharan Africa. It not only enabled the administration to raise the necessary funds for administrative and security purposes, but also served as a symbol of the authority and legitimacy of the colonial state (Young, 1994). Bush & Maltby (2004) argue that the main

purpose of colonial fiscal institutions was to make Africans a "governable people". This is in line with the concept of "l'impôt moralisateur" introduced by Gallieni in Madagascar, where taxation was aimed at instilling a work ethic in the locals who Gallieni viewed as lazy (Jacob, 1987). However, one of the aims of the European tax system was to integrate the colonies into the capitalist system through trade (Ochonu, 2018).

According to the literature, Britain favoured indirect taxation due to its lower cost compared to direct taxation, which was mainly used by the French colonial administration (Lange, 2005). Although Britain preferred indirect taxation, it also used direct taxes such as the poll tax or the hut tax to raise revenue in the colonies (Frankema, 2011). Therefore, both Britain and France alternated between the two forms of taxation depending on local circumstances in order to improve the revenue situation in their respective territories. Table 4 in subsection 7.3 provides an overview of this pattern.

Direct taxes comprised levies on persons, animals and land and required considerable bureaucratic effort to collect and monitor. Therefore, imperial powers relied heavily on local chiefs to collect direct taxes. Berry (1993) argues that this strategy was aimed at reducing the cost of tax collection and integrating local institutions into the colonial administration. However, she concludes that both France and Britain levied indirect taxes regardless of their respective governing philosophies. Indirect taxes were mainly customs duties, as they were easier to monitor and enforce. In contrast to direct taxes, they were harder to evade as they were levied at points of entry and exit, which posed fewer administrative challenges (Frankema & Waijenburg, 2014). The chart below provides an overview of the pattern of tax collection in the British and French colonies in sub-Saharan Africa.

Figure 34: Average per capita tax revenues in the British and French colonies 1907-1930



Source: Based on the author's work using data from the Gallica Digital Library and Colonial Blue Books.

The graph shows that, on average, the British colonies generated more direct revenue (80.99 francs per capita) than the French colonies (58.42 francs), even though the French administration relied on direct taxes. This pattern can be explained by the level of revenue in the British inland colonies and the conversion rate of the data into French francs. In contrast to France, the economically profitable colonies in the British Empire did not subsidize the less productive colonies. For example, financially weak colonies such as Mauritania and Niger in the French Empire were subsidized by territories such as Côte d'Ivoire and Senegal, a practice that was not observed in British Africa (see *Budget des Recettes et Dépenses des colonies* in the Gallica Digital Library).

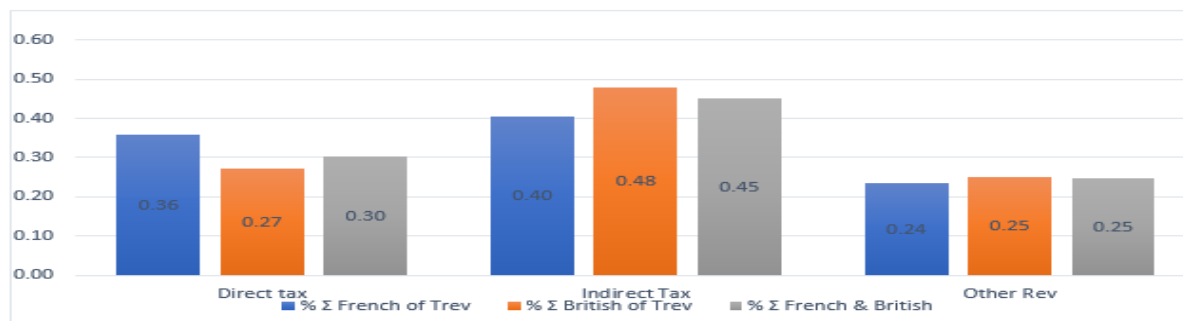
Furthermore, the data show that the British colonies had a higher volume of indirect revenue (143.23 francs per capita) and non-tax revenue (75.25 francs per capita) than the corresponding figures for the French colonies (65.59 francs and 38.27 francs per person respectively). While Britain encouraged indirect taxation in its colonies whenever possible, the low level of indirect taxes in the French colonies can also be attributed to the fact that local authorities in the French colonial territories levied very few, if any, indirect taxes (Huillery, 2014). These taxes were levied at the federal level, which explains the absence or low presence of indirect taxes in the local budgets of most French colonies (see *French Dépenses & Recettes* in the Gallica Digital Library).

Moreover, the chart shows that the volume of indirect taxes collected by the French colonies exceeded the value of direct tax revenues, which may seem unusual considering that local governments in the French territories levied very few indirect taxes. However, this was only the case in the federal colonies of French West Africa (AOF) and Equatorial Africa (AEF). The increase in indirect taxes in the graph is due to the non-federal colonies of Djibouti, Comoros and Madagascar, where the federal policy did not apply.

However, when looking at the tax structure in terms of the share of each tax category in the total revenue of the two imperial powers, it becomes evident that the share of direct taxes in the total revenue was higher in the French colonies than in the British. The literature points out that direct taxes accounted for a significant proportion of local governments revenues (Frankema, 2014; Huillery, 2014), which is evident in the annual budgets of the French colonies. In contrast, Britain relied more on trade taxes, resulting in a higher share of indirect taxes in total revenues in most of its colonies. Although the literature suggests that the French administration caught up with the British in terms of tax collection, the different levels of tax collection in relation to

total revenue can be explained by the political structures created by each colonial power (Frankema, 2014). The following figure illustrates this pattern.

Figure 35: Percentage of taxes and other revenues in total colonial revenues 1907-1925



Source: Based on the author's work using data from the Gallica Digital Library and Colonial Blue Books.

In the British colonies, the local chiefs were responsible for tax collection, which conveyed a sense of legitimacy. In contrast, in the French colonies, the "commandant de cercle," a French official, supervised the entire process, which often led to resistance. Mamdani (1996:56) argues that "District-level autonomy at times reached the level of a fetish, as we will see with the food policy in the British colonies. The result was a pervasive revenue hunger all along the chain of command, from the central to the local state, leading to efforts to tax or impose fees on anything that moved. Even the performance of chiefs was judged - and their salary levels established - on the basis of the tax revenue they were able to collect, not the number of persons under their administration. This was true even in the poorest districts, such as Karamoja in Uganda".

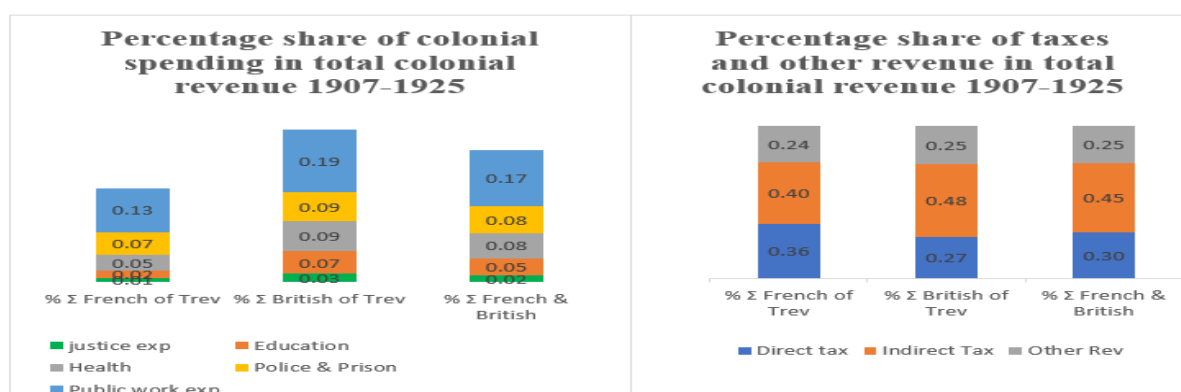
The British quest for tax revenue in British Africa, as described by Mamdani, had a significant impact on the institutions enforced in their colonies. The situation was similar in the French colonies, especially with the introduction of the capitation tax. Since indirect taxes were only levied at the federal level, the burden of taxation to maintain colonial administration fell heavily on local governments. As a result, the need for revenue led to institutional outcomes that posed various economic and political challenges in the post-colonial era and prevented broad-based prosperity, as Blanton et al. (2001) noted.

Frankema (2011) examined tax and government spending patterns in British Africa to determine whether Britain prioritized revenue maximization or minimized development efforts. He created an analytical framework that linked tax levels to colonial spending patterns and captured the impact of the colonial tax system on institutional outcomes. Frankema developed a two-dimensional matrix in which he compared tax revenues in British Africa with spending

on education, health care and colonial law and order (police, prisons and military). His finding led to different institutional outcomes

Similar to Frankema, I focus on the allocation of resources across sectors such as education, justice, health, law and order, and public works in the British and French colonies. My analysis helps to identify the types of states created by the fiscal policies of the two imperial powers. This is illustrated in the following figure. The figure shows the proportion of revenue allocated to the different sectors of the colonial state. It shows that the British colonies invested more in public goods than the French colonies in all sectors. British spending on public goods even exceeded the average government spending of the colonial powers combined, with allocations of 2 percent to justice, 5 percent to education, 8 percent to health and 8 percent to law and order. In addition, in both France and Britain, 17 percent of total revenue was spent on public works such as building roads and bridges.

Figure: 36: Percentage share of colonial expenditure in total colonial revenue and percentage share of fiscal and non-fiscal revenue in total colonial revenue



Source: Based on the author's work using data from the Gallica Digital Library and Colonial Blue Books.

According to Frankema's model, this pattern of spending on public goods in relation to the revenues collected by France and Britain corresponds to an extractive state in which tax revenues are high but spending on public goods is disproportionately low. Critics of European colonialism, such as the dependency theorists who argue that Europe has underdeveloped Africa (Rodney, 1972/2018), find support in the analysis of public goods provision, as Figure 36 shows. Adequate public goods are crucial for development and economic growth as they reduce poverty and inequality and promote social welfare and productivity (Birdsall & Diofasi, 2015; Acemoglu et al, 2001; Besley & Ghatak, 2006; Dittmar & Meisenzahl, 2020).

However, the proportion of colonial revenues allocated to public goods appears to be low, as shown in Figure 36. It should be noted that this dissertation does not examine how the remaining

revenue were used or whether they were used for other transfers. The focus is solely on the importance of public goods for development and the fact that their allocation in colonial budgets was relatively small, with a significant portion going to administrative expenses such as wages and salaries (Frankema, 2011; Huillery, 2014).

Frankema shows that in British Africa, more than 20 percent of local government budgets were spent on administrative expenses, compared to only 5 percent in the British colony of New Zealand. This discrepancy can be attributed to the limited budgetary and debt capacity that prioritized the development of colonial administration. In addition, British colonial officials received higher salaries than native workers or farmers, who bore the brunt of colonial taxation. For example, the personal emoluments of British officials in Nyassaland accounted for 60 percent of the colony's total budget. A similar pattern can be observed in the French colonies, where the salaries of French officials accounted for a disproportionate share of local government expenditure (Huillery, 2014).

Numerous empirical studies have demonstrated the link between government spending on public goods and economic growth, particularly in the areas of education, health, justice and infrastructure (Benos & Zotou, 2014; Collier, 2007; Aghion et al, 2010; Glass, 2009, 2008). The notion that British colonization had a positive impact solely due to the effects of British colonial education is downplayed by Frankema (2012), who demonstrates that the British administration invested little in education until 1940. Similar patterns can be observed in the French, Belgian and Portuguese colonies in sub-Saharan Africa. The construction of railroads by the imperial powers served military, mining and agricultural purposes and often followed the cheapest routes, which has been criticized by contemporary scholars (Jedwab et al., 2017). An example of this is the Kenya-Uganda Railway, referred to as the "Lunatic Express," which according to Jedwab et al. went "from nowhere to utterly nowhere"

In summary, colonial taxation played a central role in European colonialism in sub-Saharan Africa, as it provided the finance for administration and security while symbolizing colonial authority. Britain favoured indirect taxation, while France used both direct and indirect taxes. Direct taxes required extensive bureaucracy and relied on local chiefs, while indirect taxes were easier to monitor and enforce. The revenue patterns of the two powers differed, with the British colonies generating more indirect revenue and the French colonies relying more on direct taxes. There were also differences in The distribution of tax revenues, with France collecting a higher proportion of direct taxes, while Britain collected more indirect taxes.

The provision of public goods and investment in education, healthcare, infrastructure and other sectors was relatively low compared to tax revenues, which led to economic and political challenges in the post-colonial era. The impact of colonial tax policies and the distribution of revenues illustrate Africa's underdevelopment and the importance of public goods for sustainable growth and development. However, the colonial strategy of both imperial powers and the resulting tax systems led to resistance to colonial rule and postcolonial problems, a factor I will explore in the remainder of this subsection.

7.4.2 Local resistance against colonial taxation

Resistance to colonial taxation has a long history in colonial historiography, dating back to the colonization of the New World. For example, the colonists in America refused to pay taxes to the British Crown because the tax laws imposed on them were enacted by the English parliament, in which they were not represented. This gave rise to the famous doctrine of "no representation, no tax" (Beer, 2010:297). Similarly, colonial taxation in sub-Saharan Africa has always been a contentious issue, leading to frequent disputes between European administrations and indigenous Africans (Frankema & Waijenburg, 2014; Gardner, 2012).

Among various other grievances, colonial taxation was an important factor in indigenous resistance to colonial rule (Moyd, 2017). Africans perceived it as illegitimate and burdensome and often expressed their resistance by refusing to pay taxes or evading tax collectors through desertion or hiding. These acts of resistance subsequently affected colonial revenues (*ibid.*). In particular, the Giriama chiefs in Kenya and the Bakiga in Uganda were known for resisting British demands for labor and resisting taxation and forced labor (Turyahikayo-Rugyema, 1976; Moyd, 2017).

Berman & Lonsdale (1980:58) argue in their study that "when the coercive powers of the state are employed to establish and maintain capitalist production relations, particularly during the initial stages of primitive accumulation where direct producers are forcefully separated from the means of production and the products of their labor, the legitimacy of state authority becomes threatened and the broader social order faces challenges from the resistance of the subordinate classes".

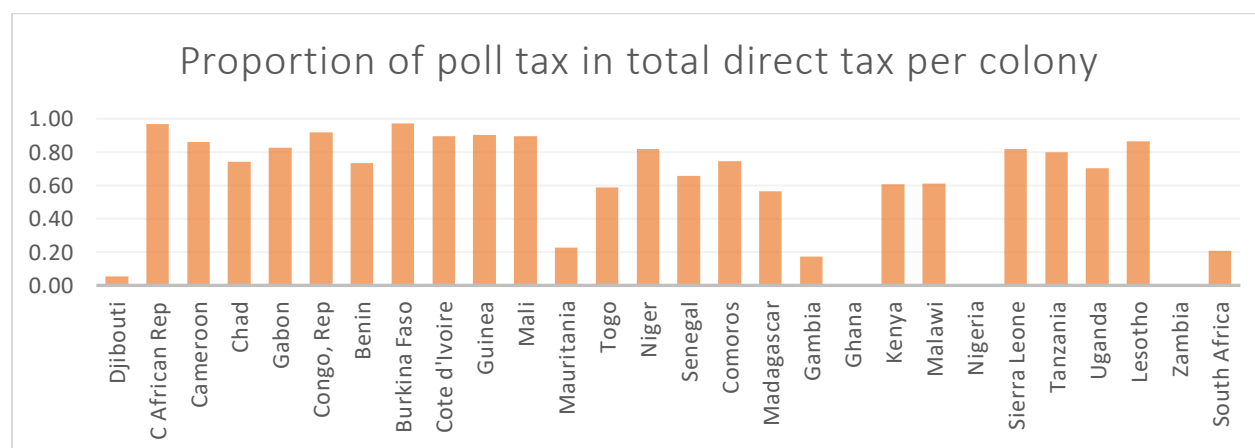
Burton (2008) suggests that one reason for the failure of the colonial tax system was the inability of the imperial administration to legitimize it. In his study of taxation in the former British colony of Tanganyika (now Tanzania), Burton reports numerous cases of resistance and widespread tax evasion. For example, out of 500 tax evaders who were asked to pay their taxes,

300 did not comply, which illustrates the extent of tax evasion. Non-payment of taxes often led to convictions and fuelled bitterness and rebellion against the colonial administration. Dr. Wagner's 1900 pamphlet documents the deaths of 2000 natives who resisted taxation (p. 76).

Direct taxation, especially the poll tax or hut tax in the British colonies and capitation tax in the French colonies, was an onerous tax with profound social implications. For example, local Swazi chiefs warned the British administration that the tax would not only meet with disapproval, but would also lead to social problems such as the breakdown of families as Swazi husbands abandoned their wives due to the tax burden. It also led to prostitution and resistance. To avoid imprisonment, families in Swazi society sold staple foods for subsistence, borrowed money and even offered their underage daughters in marriage to meet the tax demands (Crush, 1985:184).

According to Manière (2013), direct taxes in the form of capitation taxes accounted for up to 60 percent of the budgets of eight French colonies in West Africa. Manière claims that all territories within the federal colonies of the AOF rejected the capitation tax. This is illustrated in Figure 37. The chart, based on data from the Gallica Digital Library and the Colonial Blue Books, shows the significant share of the poll tax in the total direct revenue of the British and French colonies, with the exception of Djibouti, Mauritania, Gambia and South Africa. However, due to the lack of early political and social organization, resistance took the form of refusal, desertion and fraud, similar to the British colonies. In Ghana, the poll tax was short-lived, lasting from 1852 to 1861 (see Aboagye & Hillbom, 2020:187), and no data on the tax is available for Nigeria, although it was also introduced in the eastern part of the region in the early 1900s (Brautigam et al., 2008:115).

Figure 37: share of poll tax in total direct revenue from British and French colonies



Source: Based on the author's work using data from the Gallica Digital Library and Colonial Blue Books.

In addition to tax evasion through emigration, hiding or fraud, there were also armed conflicts as a form of resistance. Examples include the 1898 hut tax conflict in Sierra Leone, the 1930 Dahomey Rebellion in the French colonies and the "Blood-Stains Tax" armed conflict against the poll tax in South Africa (Redding, 2000). The Bambatha Rebellion in Zululand was motivated by resentment of colonial rule, the loss of fertile land to white settlers and the additional burden of a new poll tax. Spiritual beliefs and the catalytic effect of the tax prompted the Bambatha to wage war against colonial rule (ibid.). Similar uprisings also occurred in other regions, such as the East and Zimbabwe (Iliffe, 1967; Kaoma, 2016).

Notable resistance movements also included the 1929 Aba women's uprising in southern Nigeria and the Maji Maji rebellion in northern Tanzania (Iliffe, 1967). Struggles over taxation went beyond direct taxes and included resistance to trade taxes, particularly on imported goods. Higher taxes were levied on imported goods than on exported goods, which affected European producers and consumers in the colonies. European producers were more opposed to trade taxes than the indigenous population, while indigenous farmers, mining companies and plantation owners were opposed to export taxes (Frankema & Waijenburg, 2014). However, the colonial strategies pursued by both France and Britain had significant consequences not only during their administrative rule, but also for post-colonial outcomes.

7.4.3 Strategies of Colonial Administration and Postcolonial Outcomes

France and Britain employed different methods of governance and tax systems to generate revenue in their former African colonies. Depending on local circumstances, they adopted different approaches to revenue collection (Frankema, 2014; Gardner, 2012), alternating between different styles or adopting a mixed method as needed (Geschiere, 1993; Lange, 2005). Britain was known for its indirect rule, where it governed its colonies through indigenous peoples (Mamdani, 1996), while France administered its African colonies directly (Lange, 2003). However, there are differing views on the impact of these two styles of administration, focusing on the identity of the colonizer (Lange, 2003), and the structural differences between the two systems (Fisher, 1991; Lugard, 1922).

Lange (2004) argues that the two methods institutionalized different states, leading to different postcolonial development outcomes. The literature on direct and indirect rule suggests that British colonization had a negative impact on the political development of former colonies (Boone, 1994; Reno, 1995; Mamdani, 1996; Migdal, 1988), while some empirical studies associate British rule with better economic development (Letsa & Wilfahrt, 2020). Mamdani describes the British system as "decentralized despotism", and Reno agrees, highlighting its

impact on political development in the former colonies. Letsa & Wilfahrt (2020), on the other hand, take a different view, noting a positive correlation between economic growth and indirect rule in "Anglophone" Cameroon. Nonetheless, many authors, including Lange, portray French colonial rule as conducive to "state-led" development and point to the post-colonial success of Mauritius after 200 years of French colonial rule (Lange, 2003). Similar arguments on the effects of direct colonial rule can be found in other studies (Amsden, 1989; Huff, 1994; Kohli, 1994).

British colonization resulted in a decentralized, conservative political system that relied on indigenous intermediaries (Young, 1994) and led to ethnic divisions that hindered the mobilization of indigenous collective action and the formation of a national identity (Blanton et al., 2001). On the other hand, French colonial rule led to a centralization of the bureaucracy that undermined indigenous organizational patterns and contributed to the establishment of authoritarian regimes (ibid.). This clearly shows that there were two institutional systems: traditional African systems that were subverted and dominant European institutions that were imposed.

However, (Adotey, 2019:628) cautions against overemphasizing the equidistance of the two institutions and argues that both the French and British systems hindered indigenous chieftaincy. Although I believe that Adotey's concerns are valid, they do not change the fact that local institutions exist in parallel with state institutions and have influenced and continue to influence collective behaviour in Africa. For example, the institution of traditional marriage is still prevalent and varies between ethnic groups, although it is only recognized to a limited extent by state laws (Meekers, 1992).

The same is true of the institutions of contract law, although improvements have been made in some countries (Castellani, 2008). Despite the efforts of many governments to apply national commercial law to all citizens after independence and to replace customary rules, Castellani acknowledges that "the high expectations in the field of African uniform law have unfortunately not been met with adequate results" (p. 116-117). No one expresses the duality of institutions and their long-lasting consequences in Africa better than Peter P. Ekeh in his theory of "two publics." He argues that European colonialism has led to the emergence of "two publics" that stand in contrast to the one "public" of the West. Ekeh argues that most of Africa's political problems have their roots in the dialectical connection of these "two publics" (Ekeh, 1975; Adebani, 2017).

Furthermore, Ekeh's theory shows that African institutions and culture were not extinguished after colonization, unlike in the European offshoot nations during the colonization of the Americas (Wolfe, 2006). African institutions have survived, even though it is fair to say that local rulers no longer have a monopoly on violence – a fundamental aspect of state sovereignty – as modern forms of governance shaped by the continent's colonial past have emerged and been adopted. Nevertheless, the traditional political authorities still have a strong moral coercive power and exert their influence through cultural channels, as the majority of society remains rural and has a strong cultural imprint.

Considering that the institutions inherited from Europe were developed on the basis of a Western value system that is very different from the African value system or non-European belief systems, it would be wrong to downplay the role of this dualism in Africa's institutional deficits and their impact on politics and collective action. I argue that traditional politics significantly influences individual behaviour and thus collective action. For example, the Moro Naba in Burkina Faso played a crucial role in the reinstatement of civilian rule after the 2015 military coup (BBC, 2015).

However, local politics and mainstream politics have not always been congruent, and given the strong ethnic and cultural ties between people, it is reasonable to assume that the acceptance of a broad-based rule of law, distinct from the traditional rules and laws that govern social interaction, can only be effective through the reconciliation of the two institutions. They cannot coexist at the same time given that they derive their legitimacy from different sources. I argue that this gap in the literature requires further investigation as both institutions will constantly fight for their own survival.

Given the persistence of traditional African institutions, I assume that these institutions continue to coexist with state institutions and influence collective behaviour by providing opportunities for institutional free-riding that undermine the quality of institutions and especially the rule of law. Drawing on institutional theory (North, 1990; Acemoglu et al., 2001), I argue that the persistence of institutional dualism (Ekeh, 1975; Donald, 1996; Adotey, 2019) throughout history is at the root of many institutional challenges in Africa today (Blanton et al., 2001). Therefore, instead of abolishing one of the two institutions, I propose reconciliation since neither has succeeded in completely eradicating the other. Therefore, social actors naturally exploit loopholes in the system.

However, it should not be forgotten that state and nation building in Europe and its offshoots has taken more than 400 years and the extension of voting rights to women and minority groups

is a relatively recent development (less than 100 years and less than 50 years for some countries such as Liechtenstein and Portugal). Given these factors, it is short-sighted to condemn a continent of relatively new states and emerging nations (on average less than 60 years old) in the face of the many institutional challenges they have inherited. What is needed is institutional consensus building instead of the Western media's daily critique of the current institutional landscape, assuming one is familiar with the challenges of state and nation building (Tilly, 1975, 1990; Herbst, 2000). After the end of colonial rule, Africa had different types of states, mostly weak states (Frankema & Waijenburg, 2014; Amin, 1972), but no viable nation-states.

Britain institutionalised a tripartite system of patron-client relationships that linked the colonial administration to its subjects through local governing bodies, mainly local chiefs, who were elected on a patrimonial basis. African chiefs derived their resources primarily from land ownership and direct taxation of their kinsmen, although they were on the payroll of the colonial administration. They were vested with legal and executive powers to regulate social interaction in their territories on the basis of traditional laws. (Lange, 2005) has identified three relevant aspects of indirect rule for scholarly analysis of the colonial legacy. First, Lange argues that the central legal administrative institution was of limited size and had little direct contact with the indigenous population. This limited the ability of the colonial administration to govern in the periphery without resorting to violence.

Secondly, Lange argues that the British indirect style gave local chiefs too much power through customary rights, which they could abuse for personal gain. Finally, Lange emphasises the intermediary role of local chiefs in the British indirect system, who controlled the flow of information and resources between the indigenous population and the colonial administration. However, it is important to recognise alongside Lange's account the significant role of colonial authorities (Turyahikayo-Rugyema, 1976; Kabwegyere, 1972) and the contributions of African employees to the functioning of the colonial machinery (Osborn, 2003), as mentioned in Section 5.

The importance of human agency¹³, particularly of Africans, in shaping the practical implementation and local meaning of colonialism is evident in the experiences of French colonial officials who relied heavily on interpreters and local chiefs (Osborn, 2003). Unlike the

¹³ The effect of human Agency is expressed in the frustration of the "commandant de cercle" of Siguiri-a district of the French colony of Guinea-who complained to his superior that he relied too much on the interpreter Lassana Oularé and the local chief Mamoussa Magassouba to implement colonial policy. He demonstrates the crucial role of human agency, especially Africans, in shaping the "localized meaning that colonialism acquired in practice" Osborn (2003), as the French commander found out through the "iron circle" that surrounded him (p. 29-30).

British system, which created an ethnically based framework that led to stratification without clear "ranks" (Blanton et al., 2001), existing ethnic conflicts before colonization cannot be disregarded (Adotey, 2019). Ethnic tensions existed even before the colonial era. The European slave trade, which involved raids between villages, fuelled conflict between ethnic groups (Northrup, 1978; Manning, 1990). Consequently, the formation of larger and stronger communities, including a broader national identity, became a challenge (Kusimbi, 2004:66).

The above is best described by Hawthorne (1999) in his theory of the "gun-slave cycle", whereby the demand for slaves forced the natives to raid each other to obtain weapons to protect themselves from future raids, leading to a climate of insecurity and further enslavement (Mahadi, 1992, Hawthorne, 1999:108-109). Internal conflicts resulting from the increasing raids led to political instability and the collapse of pre-existing government structures (Lovejoy, 2000:68-70). Europeans played an important role in this fragmentation by turning the natives against each other through the exchange of arms for slaves (Hawthorne, 1999, 2003). However, British policy emphasized ethnic differences even more (Horowitz, 1985/2000) and perceived them through an ethnic lens to prevent anti-colonial sentiments (Wilson, 1994). This reinforced existing divisions and contributed to growing ethnic tensions that can be observed in post-colonial ethnic conflicts.

It is widely recognized in the literature that European colonization in sub-Saharan Africa altered precolonial boundaries and led to a diverse ethnic composition in the colonies (Michalopoulos & Papaioannou, 2012). Although precolonial empires such as the Ashanti integrated other ethnic groups in the course of their expansionist efforts (Arhin, 1967), the deliberate mapping of the continent during the conquest resulted in a different pattern of social organization than in the precolonial period. Against the backdrop of this territorial division, European administrations, particularly the British, encouraged the division of indigenous populations in order to control and exploit their resources (Clapham, 1985; Crowder, 1964). This divide-and-rule strategy exacerbated ethnic polarization long before it became visible in postcolonial Africa (Blanton et al., 2001).

The literature on development in sub-Saharan Africa after European colonization, establishes a link between ethnic diversity and cross-national achievement gaps (Easterly & Levine, 1997). Ethnic conflict has been associated with low income, slow growth and poor economic policies. Ethnic diversity can exacerbate ethnic polarization, leading to rent-seeking behaviour, suboptimal policy choices, and political instability (Alesina & Tabellini, 1989; Alesina et al., 1999; Easterly & Levine, 1997). The absence of the rule of law, which is closely linked to

sluggish economic development, underlines the negative impact of weak political institutions (Cerar, 2009; World Bank, 2012; Trubek, 2006).

Unlike the British system, however, French colonial policy developed authoritarian institutions through centralization (Crowder, 1964). The French aimed to integrate their colonies into the larger French community by culturally assimilating the colonial subjects of different ethnic groups into a French-style social organization under French control (Delavignette, 1970). In this process, precolonial African institutions were completely undermined and the French sought to replace them with their own institutions.

Similar to the British, the French introduced new systems such as language, capitalist economy, education, religion, politics and legal structures in their colonies (Clapham, 1985; Roberts & Mann, 1991). The rigidity of the French system led to the formation of enduring authoritarian governments (Blanton et al., 2009). In the French colonial system, African leaders played a subordinate role and functioned merely as instruments or means to an end, as one French colonial governor said (Young, 1998). These leaders occupied the lowest position in the political pyramid (see section 5.3.1).

McNamara (1989) highlights that French colonial institutions were designed to allow state officials to administer the colonies with the help of educated indigenous Africans who were not recruited from existing traditional authorities as in the British system (Amone & Muura, 2014). These newly educated elites were selected based on their willingness to cooperate with the colonial administration and were integrated into the French education system, thus weakening the authority of the native elites (Blanton et al., 2001). This fact is vividly illustrated in Ahmadou Kourouma's 1968 book *"Les soleils des Indépendances"* (Kourouma, 1976/2013), in which the power struggle between the traditional institutions and the inherited European institutions is illustrated by the character of "Fama", a former prince who hoped to regain the privileges lost through colonization, but was disappointed when the "Blakoros" consolidated power (Koné, 1980).

Furthermore, assimilation in education was unevenly distributed under the French colonial system (Blanton et al., 2001). The centralization of the French system created an unequal structure that led to differential socioeconomic advantage and upward mobility among ethnic groups and linked success to ethnicity. This system led to the development of authoritarian-led institutions that persist to this day (Kieh & Agbese, 2013). After decolonization, the educated African elites took over the colonial institutions and continued the same behaviours as their

predecessors with the only difference being that the oppressors now looked the same as the oppressed.

The above observation is consistent with Delavignette's (1970:276) argument that the colonial institutions merely changed hands, but the institutions remained. Blanton and his colleagues argue that the concentration of power within the French system undermined African institutions and impaired the ability of ethnic groups to mobilize politically for collective action. Under French colonial rule, collective action to advance indigenous causes was virtually impossible due to the centralization of power in the hands of the French.

The introduction of a new legal system and unjust laws weakened local African leadership and led to economic exploitation and subjugation, resulting in abject poverty and a decline in well-being (Benyera, 2020). Benyera argues that the colonial state is the problem in Africa because nothing in Africa can be discussed without alluding to European colonization. The persistence of colonial institutions is held responsible for the current level of poverty in Africa (Acemoglu et al., 2001; Acemoglu & Robinson, 2010). The political representation of the four Senegalese communes in the French parliament before 1945 is unique (Diouf, 1998; Mills, 2011).

To summarize, colonial revenue requirements determined the type of policies introduced in the colonies. These policies were usually determined in part by local conditions. The implementation of colonial policies was always dependent on the support of local actors, especially in the collection of taxes. In the British colonies, this led to the preservation of existing political institutions where the colonizer ruled by dividing the locals, while in the French territories it led to the formation of a new, assimilated elite to the detriment of the local leadership.

I argue that this pattern led to the coexistence of a dual institutional system in which European institutions supplanted African institutions through coercion. One of the most striking examples of this is the introduction of the colonial legal system (Joireman, 2001). It led to the undermining of existing African legal systems (Robert & Mann, 1991) and the erosion of a broad-based rule of law – a pattern that continues to this day. I will discuss this assumption in more detail in the next section.

8. Persistence of colonial legacy on Africans institutions

A significant body of literature, notably Acemoglu (2001), argues that the lasting effects of European colonialism in Africa are visible in the institutions inherited from that era. This raises the question of how this legacy continues to shape the performance of sub-Saharan African

countries today. I argue that the poor performance of these countries is rooted in the institutional framework that can be traced back to the colonial era. Colonisation by Europeans had a profound impact on development of African institutions, particularly on the rule of law, as it fostered the persistence of two distinct institutional systems – one European and one African – each deriving legitimacy from different sources (Adotey, 2019). Against this backdrop, I argue that this pattern undermined and continues to undermine the establishment of an inclusive rule of law, as the existence of two sets of rules creates opportunities for free-ride.

In addition to economic and expansionist goals, the motivations for European colonialism in Africa included the perception of Africans as culturally underdeveloped and with primitive institutions that needed to be changed (Buhlan, 2015). Europeans endeavoured to replace what they perceived as backward institutions in their colonies. With this in mind, I have first examined the nature and strength of precolonial African institutions and then moved on to dispel some of the misconceptions and preconceptions that Europeans had about Africans by examining the specifics of precolonial African institutions. However, the question remains: how did colonialism affect institutions and, in particular, the rule of law? In the following subsection, I will explore this question by explaining the mechanisms through which this persistence impacted on the rule of law.

8.1 Mechanism of the effect of colonization on institutions – Rule of Law (ROL)

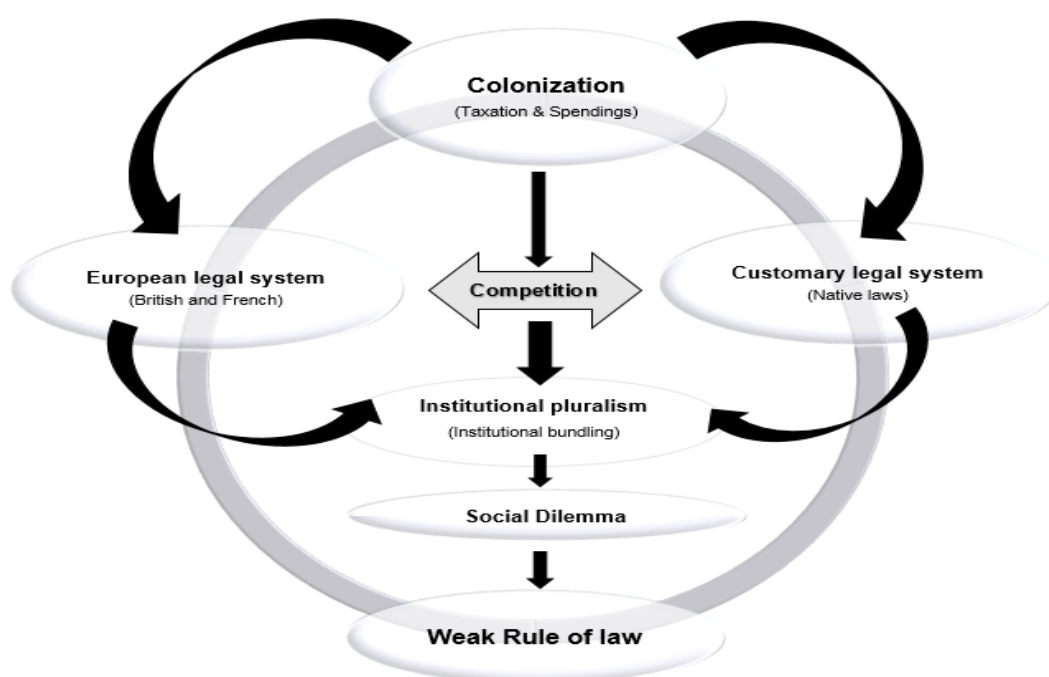
The legal relations between Africans and Europeans, that resulted from centuries of trade predate colonial rule. Africans and Europeans were involved in a complex interaction that required explicit rules to govern their relations, especially those relating to accountability, credit, property, trade, labor, marriage, inheritance, dispute resolution, etc. (Robert & Mann, 1991:9). Initially, the host (Africans) retained the legal advantage over all guests (Europeans or others), as the latter largely relied on local rulers for protection and accepted their authority (Rodney, 1966/1982:83-117; Curtin, 1975:124-188).

Over time, however, Europeans began to demand more rights (Rodney, 1966/1982:91-92; Curtin, 1975:289-290), leading to intense competition for control of the legal institutions (law) that characterized interactions between Europeans and Africans before and during the colonial period. After the conquest of almost the entire continent by 1914, which eventually led to the imposition of colonial rule in Africa, law formed the basis for access to resources, control over power and authority, and the standard for morality and culture (Roberts & Mann, 1991:3; Chanock, 1991; Killingray, 1986).

Robert and Mann argue that "law not only affected nor was it only affected by the engagement between Africans and Europeans. (p.3)." They further argue that "Africans used law as a resource in the struggle against Europeans" (p. 3). Similarly, Chanock lays out how colonial rule hindered the progress of individual property rights and how it failed to protect the property of younger men and women from the control of older men. However, the legal institution (law) was as contested among Africans themselves as it was between them and the Europeans (see Gluckman, 1955, 1973).

The rivalry over which laws applied in Afro-European relations or who could/should set the rules of the "game" (interactions between Africans and Europeans) not only affected the living conditions of Africans, but also hindered the development of their legal institutions. Robert and Mann (1991) argue that "although the asymmetries of power in early legal interactions between Africans and Europeans favored Africans, law was from the beginning a subject of conflict in the ongoing struggle over access to trade and control over its profits" (p.10). Therefore, control over this "commodity" (law) seemed to be very important to both actors. This was true not only between Africans and Europeans, but also between Africans themselves (ibid.:p.10; Kea, 1982:206). Against this backdrop, I outline below the mechanism by which the colonial legacy influences contemporary institutions and, in particular, the rule of law in Africa.

Figure 38: Mechanism of the impact of European Legal system on current African institutions



Source: based on the author's work using historical information from Robert & Mann (1991) and other cited in section 5.

The Figure 38 shows that the advent of European colonialism in sub-Saharan Africa leads to the forceful establishment of the European legal institution and the creation of customary law (Robert & Mann, 1991; Joireman, 2001). I argue that the forceful introduction of a new foreign legal system into African society, combined with the emergence of customary law, led to intense competition for control over the means and ways of accessing resources. This unhealthy coexistence of European institution with African traditional institution led to the clustering of institutions, a situation I refer to as institutional pluralism as the figure shows. By institutional pluralism, I am simply referring to the duality caused by the introduction of another legal institution next to the indigenous institution.

I further argue that the unhealthy adversarial interaction, the bundling of two competing "rule of game" – legal systems – that derive their legitimacy from different sources, creates a structurally unbalanced institutional environment because one system coercively dominates the other (Deflem, 1994). This imbalance, which disadvantages Africans and favors Europeans, leads to an erosion of justice for all, especially indigenous peoples (Robert & Mann, 1991). As a result, a social dilemma arises and non-cooperation becomes the dominant strategy and consequently contributes to the weakening social of cohesion and the rule of law (ROL).

8.2 Theoretical framework of the colonial origin of weak institutions

Using Figure 38 in subsection 8, I argue that the imposition of colonial rule led to unfavourable institutional outcomes due to a pervasive social dilemma, reflected in a weak rule of law. As explained by Olson (1965), a social dilemma refers to circumstances in which individuals do not cooperate with others due to conflicts of interest. It describes the inherent tension within groups that require collective action, whereby individual self-interest clashes with actions that benefit the collective. Essentially, it is a conflict between the individual costs (externalities) and the costs to the collective. This conflict leads to a social dilemma in which individual self-interest diverges from the collective benefit. Against this background, I outline the patterns of behaviour of Europeans and Africans arising from this dilemma in their historical interactions.

Cooperation and defection are two common features in the behaviour of living organisms, whether they are bacteria or primates (Axelrod & Hamilton, 1981; Gardner et al., 2016; Sachs et al., 2004). Considering that interactions occur on a probabilistic basis between the same species or between species of different kinds, sometimes as one-off rounds or in a repetitive manner that requires decision making at each encounter. I argue that interactions between Africans and Europeans throughout history resemble a competitive model described in Axelrod and Hamilton's evolutionary stable strategy model in the context of the prisoner's dilemma. I

draw on the latter concept to assess the failure of the ROL that resulted from relations between Africans and Europeans during the colonial period in SSA.

Since competition over the institution of law characterizes precolonial and colonial relations between Africans and Europeans, as Robert & Mann (1991:9-23) have described, let me first make some clarifications between law and ROL. The former describes a set of codified rules designed to regulate and govern social relations, while the latter "encompasses the mechanism, process, institution, practice, or norm that supports the equality of all citizens before the law, ensures a non-arbitrary form of government, and generally prevents the arbitrary exercise of power" (Choi, 2019:1). The mere existence of laws or legal institutions does not necessarily mean that they are correctly applied to all or followed by all actors, regardless of the existence of sanction mechanisms.

Institutions do not survive without human acceptance. They are created by people, and people are central to their functioning and continued existence. By analogy with Burke¹⁴, I contend that the only thing necessary for the triumph of anarchy is for enough people to do nothing to uphold the rule of law. A classic example of what I have just said is the colonial episode in SSA. As the literature in this dissertation shows, the colonizer and his agents did nothing to uphold an inclusive rule of law.

If there are not enough people, especially those with influence, as was the case with the colonial administration, to ensure that the law is faithfully and fairly applied, there cannot be an inclusive and viable rule of law, and without the rule of law, none of the other institutions can function effectively. A weak rule of law has a domino effect. It is the foundation on which everything is built, and it is the only instrument that enables a fair justice system, which is central to economic growth and development (Trubek, 2006; United Nations, 2012).

I maintain that law is a public good. A public good is non-rivalrous and non-excludable (Desmarais-Tremblay, 2014; Coase, 1960). This means that the use of a public good by one person does not prevent another person from consuming the same good at the same time (Perman et al., 2003). For example, if a person A breathes air, this does not prevent a person B

¹⁴ Edmund Burke is said to have claimed that "the only thing necessary for the triumph of evil is that good men do nothing". It is debatable whether Edmund Burke ever said this quote in the same way, but in a similar context. But it does not matter whether Burke said it exactly like that or not; what matters is the context of the quote, which warns against complacency in upholding the rule of law. If enough people do nothing to prevent injustice, the rule of law will cease to function. <https://www.openculture.com/2016/03/edmund-burkeon-in-action.html>

from breathing the same air at the same time, and neither person A nor person B can be prevented (excluded) from breathing the air (ibid.). Based on the above-mentioned characteristic of the public good, the provider of the good should not exclude or discriminate against anyone in the provision of the good. This means that the benefit of the law applies equally to person A and person B. That is, there is no different right for person A and a different one for person B; neither A nor B should be excluded from the benefit of the same law, as was the case with the different application of colonial law to Europeans and Africans (Robert and Mann, 1991).

The viability of any law requires the fulfilment of a civic duty, regardless of social status, gender, race, age, occupation, or hierarchical position. When most of us free-ride on the law, it leads to an erosion of the ROL that the law is supposed to guarantee. The fair and equal application of the law to all leads to a better justice system, without which ROL-based society is not possible. Similarly, strong ROL leads to a better justice system. However, if self-serving interests can circumvent the law with no or lesser consequences, they will tend to do so because, according to the theorem of (Machiavelli, 1513/1995), rational people do not pass up profitable opportunities (see Hirshleifer, 2001: 10-11).

Biased legislation is a serious problem, as the history of mankind proves. The enactment of laws that enabled slavery, colonization and the Holocaust is an indelible stain on the moral universe. The "Indigénat" policy in Africa and Asia in the late 19th century until after the Second World War, for example, gave most of the indigenous population in the French colonies an inferior legal status (Doho, 2017). The arbitrariness of this law favoured the then European minority and the citizens of a few territories such as Dakar, Rufisque, Gorée and Saint-Louis in the colony of Senegal (Gueye, 2019). Another example in the same form is the payment of the poll /capitation tax in the colonies, which accounted for the bulk of the colonial administration's revenue and whose burden was borne exclusively by the locals until after the Second World War.

The colonial law was unjust and was partially applied to the natives, which violated the characteristic of non-excludability of a public good (see Buell, 1928; Opoku, 1974). On the one hand, it favoured the European minority to the detriment of the indigenous population, and on the other, it gave some the opportunity to free-ride and get away with it, while others could not. These inequalities in the supply of the colonial public good (legal system) raise questions about Acemoglu's settler theory (Acemoglu et al., 2001). In the previous sections, I have extensively documented the pervasive and discriminatory nature of French and British colonial policies.

After the balance of power shifted in the 19th century thanks to the industrial revolution and military superiority due to technology, Europeans continued inland the legal changes they had begun in the coastal areas (Gold Coast and Niger Delta) before the conquest (Robert & Mann, 1991:11-12).

In agreement with Buell (1928:1003) and Opoku (1974:142), Robert and Mann point to the inequality in the French colonial legal system. Africans, they note, were only allowed to sue French citizens before the "tribunal de première instance" if they were "originaires" from the four communes of Gorée, Rufisque, Saint Louis and Dakar, were assimilated or had voluntarily renounced their customary civil status. With the introduction of the "Code de l'indigénat" from 1881 to 1947 in the French colonies or the "indigenato" in the Portuguese territories, for example, harsh punishments such as forced labour were only introduced for the indigenous population (van Waijenburg, 2015; Berinzon & Briggs, 2016). This can be cited as one of these legal inequalities

According to Gilbert Doho, the autocratic character of today's African states can be traced back to the "indigénat regime" (Doho, 2017:266-267). He argues that the "indigénat" laws are comparable to Nazism, slavery, and the Holocaust (p.267). However, unlike the French legal system, Africans in the British colonies of Sierra Leone, Gold Coast, Gambia, and Lagos could bring cases before British courts presided over by Europeans and Creoles. However, if the cases were deemed "repugnant" to the European "ideal of justice, equity and good conscience", from a British perspective, African laws did not apply.

The European judges were not particularly familiar with the laws of the natives anyway and did not apply them even in cases that were not considered "repugnant"; they applied European laws. The colonial government did not recognize the African courts. Robert & Mann (1991) argue that the application of the British legal system seriously undermined African laws, local rulers, and African institutions (p.13). Suret-Canale (1971) claims that French administrators held the collective power of police officers, judges, prosecutors, and jailers. This inequality in the application of law between the colonial subjects (the African agents) and the colonial agents contributed, in my view, to the formation of the extractive state that the Africans adopted at independence.

Against this background, the question arises whether it was the colonisers' intention to indiscriminately provide public goods in the colonies. In other words, whether they intended to enact impartial laws to create a just and lawful environment for all from the outset. Or was it their intention to provide some colonial subjects with different legal protection and exclude

others, as was the case in the settler colonies? Did they intend to create institutions that would benefit all, natives, and Europeans alike, regardless of the number of western settlements? Unfortunately, the evidence presented in the previous sections of this dissertation hardly suggests that this was the case. The data in the settler colonies in the southern and eastern British colonies of Africa and in the French colony of Algeria hardly support Acemoglu's thesis.

In the settler colonies, namely Rhodesia, South Africa Kenya, and Algeria in the French empire, the institutions of property rights were not extended to the natives despite the substantial presence of European settlers (Blackbeard, 2015; Prochaska, 2002). On the contrary, the presence of Europeans led to intense competition for control of legal institutions (law) and thus for access to resources, resulting in violence, and the development of a "laager mentality" (see Wolfe, 2006, on the impact of settler colonies). A striking example of such effects in Africa is the apartheid system in South Africa, which resulted from the strong Boer presence (Percival & Homer-Dixon, 1998).

In Southern and Northern Rhodesia (now Zimbabwe and Zambia), where Europeans settled in relatively large numbers compared to other colonial areas in Africa, the colonial government enacted laws that only benefited the white population (Good, 1974). Algeria under French colonial rule had a similar experience (Prochaska, 2002). It is evident that wherever Europeans settled in large numbers in Africa, they enjoyed different legal protection, and this was no different in the Americas (Wolfe, 2006). Considering the latter, it is fair to say that the theory of white settlement advocated by Acemoglu et al., would have led to socially and economically unbalanced nations, and more violence. For example, Easterly & Levine (2016), using a dummy variable, find that the absence of settlers has a positive effect on economic development compared to colonies with a small European settlement.

My argument does not refute the positive effects of the presence of settlers on the economic growth of former European colonies, but rather emphasizes the lasting socio-economic effects on the indigenous population considering the Europeans' desire to change the precolonial "rule of the game", and consolidate power at any costs during their colonial endeavours. A clear example of my argument is the case of former colonies such as the United States, New Zealand, Australia, Canada, Brazil, and many former South American and African colonies. Economic and political control was and still is in the hands of the Anglo-Saxon descendants, to the detriment of the indigenous population and other minorities, which according to Engerman & Sokoloff (1997) explains the socio-economic imbalance in the European offshoot nations.

However, I argue that the historical relations between Europeans and Africans from the precolonial period to the end of colonisation resemble the dynamics of an evolutionary theory. The interaction between the two, as illustrated in Figure 38, resulted in a competitive environment in which Africans and Europeans vied for institutional control. Control over law determined access to resources (Robert & Mann, 1991). Therefore, the consolidation of power through the control of legal institutions was of paramount importance. I refer to this situation as a competitive situation because the relationship between Africans and Europeans encompasses almost all aspects of the definition of competition as it expresses the race for institutional control and thus for resources and territories (Birch, 1957). This competition spanned two periods: the precolonial period and the colonial period. It led to different behaviours and reactions of the two actors.

In a competitive or coalitional situation, groups compete with another because they can externally enforce cooperative behaviour through contracts and laws (Chakravarty et al., 2014). The concept of cooperation has evolved since the 1960s beyond the isolated view that attributed population-level adaptation to natural selection (Axelrod & Hamilton, 1981) to include theories of cooperative behaviour because of genetic relatedness (Hamilton, 1964) and reciprocity (Trivers, 1971; Chase, 1980; Boorman & Levitt, 1980/2012). In his theory of kinship, Hamilton presents two principles based on genetics. The first principle refers to the evolution of social behaviour in general and the second to the evolution of social discrimination.

According to Hamilton, the former suggests that the social behaviour of a species evolves in such a way that, in a given situation leading to a behaviour, the individual evaluates the fitness of its neighbours relative to its own fitness according to the relationship coefficients appropriate to the situation. That is, to behave altruistically, the ratio of gain to loss $K > 1/r$ must be low and the loss to the altruistic organism/individual must be greater. Furthermore, the latter principle, as described by Hamilton, suggests that "the situations which a species discriminates in its social behaviour tend to evolve and multiply in such a way that the coefficients of relationship involved in each situation become more nearly determinate" (Hamilton, 1964:24).

The concept of reciprocity, on the other hand, is based on the principle that people tend to reward kind acts with similar acts and punish inappropriate behaviour with similar behaviour. In his study, Trivers presents a model that explains such altruistic tendencies. He looks at behaviors in cleaning symbioses, warning calls in birds and reciprocal altruism in humans. An altruistic behaviour is an action that someone takes to help another person who is not normally related to them, even if it is detrimental to their own fitness. The benefit of a reciprocal action

depends on the cost-benefit ratio of the altruistic action, where the reward to the benefactor is greater than the cost to the performer of the action.

8.3 Dynamic of the historical behaviour of African and European

To shed light on the colonial origins of weak institutions in SSA, I examine the behaviour of colonial actors and natives at a critical juncture in their historical interaction. I draw on an evolutionary theoretical framework to present a behavioural matrix that reflects the attitudes of Africans and their former rulers over the course of their historical interaction. I argue that the attitudes and reactions of both protagonists, combined with the dual institutional structure that emerged from this relationship, led to the weakening of institutional quality in the former colonies, particularly the rule of law.

However, I would like to emphasise that the scope of this analysis is limited to literally highlighting the behaviour of Africans and Europeans in relation to their long-standing historical relationship. It does not extend to an assessment of the outcomes of their reactions to each other in terms of game-theoretical analysis, which could well be a starting point for future research. Rather, it is about shedding light on the behaviour of Africans and Europeans in this competitive environment. How did the Africans react to the rule change imposed on them? How did the host country react to the foreign takeover of the resource base and what forms did this reaction take? What choices or strategies were available to Africans and Europeans given the historical facts? The following matrixes gives us a better understanding about the behaviours and reactions of the two competitors over the course of their historical relationship.

Figure 39: Behaviour in the precolonial interaction between Europeans and Africans

Precolonial interaction		
Actors	European actor	African actor
Behaviour	Willingly cooperative	Willingly cooperative

Source: Based on the author's work using information from historical relationship of both actors.

The matrix is divided into two parts. The upper part represents the two parties involved in the competition for institutional control, namely the European and the African actor. The second row of the matrix illustrates the behaviour of the competing parties, which, according to the historical narrative, was cooperative on both sides. However, let us first define the term cooperation in this context and then rewind the history of this relationship, which has already been discussed in detail in sections 4, 5, 7 and 8, to get a better picture of the story. Cooperation

in this historical context refers to the willingness of both actors to interact with one another by abiding by the "rules of the game", which were indeed based on the African institutional arrangements. These rules were established and controlled by the locals.

To further simplify the analysis, I refer to the colonial trading company, the missionary, the European settler, the colonial agent and the colonial official as Europeans or European agents and use these terms interchangeably. According to Mbuwayesango (2018), the imperial power, the missionaries and the European settlers pursued largely similar goals in order to profit from the colonies (p.31). Even if they do not officially have the same profile, in Mbuwayesango's view they worked together and undertook a "triple assault on native culture". For the sake of simplicity, however, I also refer to the rest of the indigenous population as Africans or African agents.

The historical literature shows that relations between Africa and Europe as well as the rest of the world began long before the colonial period (Diop, 1987; Robert & Mann, 1991; Magnavita, 2013). The trans-Saharan trade was a typical example of African trade with the outside world. It was a lucrative regional and long-distance trade that, according to Akyeampong (2015), was an example of the synergy between local and global trade. He argues that trans-Saharan trade was central to cultural exchange, as it facilitated the spread of new technological knowledge and regional integration. For example, traders and blacksmiths from the Mande tribe in precolonial Mali introduced the Akan to deep underground mining technology through this trade, which in turn facilitated the spread of several Akan loanwords related to transportation, trade, and many other social categories in the Mande language (see Wilks, 1993: ch. 1; Boahen, 1977).

As I have argued in this dissertation, European colonialism was indeed detrimental to African political institutions, as it disempowered indigenous leaders from political authority, but more importantly to the continent's economy – a plight we still observe today. It contributed to the homogenization of the region's economy into uniform commodity-producing countries and the decline of Africa's internal trade (Akyeampong, 2015), which had been a major factor in trans-Saharan trade and the economic integration of the continent in the 19th century (Boahen, 1989; Ochonu, 2018).

According to Akyeampong, precolonial trade was based on the supply of ecologically specialised goods rather than the production of the same commodity. The peasantization of the colonial economy is consistent with Akyeampong's assessment, and this similarity in the production of resources largely underscores the natural resource theory. The pattern of natural

resource production in SSA has affected the diversification of the economy and fuelled many civil wars. These facts underscore my point that the African agent's non-cooperative behaviour would not have led to a bad outcome for him if everything had remained the same. While this counterfactual assumption is difficult to prove, the results of the colonial experiment in SSA hardly disprove my point.

However, in line with this literature, Africans accepted the presence of Europeans not only by allowing them to settle on their shores for trading purposes and to replenish their naval ships en route to India, but also by allowing Europeans to live among them as "guests" as long as they abided by the "rules of the game". According to Rodney, Europeans generally complied with the laws of the locals, and it was common for European merchants to marry African women in order to improve their relationships and business relationships with the Africans and establish a patron-client relationship (Rodney, 1966/1982:201). From this, I conclude that despite the emerging competitive situation, cooperation between the two actors was widespread throughout their precolonial history and thus determined the nature of their relationship.

However, the breakdown of cooperative behavior between the "host"¹⁵ and his "guest" did not happen overnight, especially not on the part of the Europeans. It took centuries of negotiation, deception, conflict, assimilation and coercion on the part of the "guest". Rodney refers, for example, to the unsuccessful attempts by Portuguese traders in the 16th century to circumvent existing trade agreements and inheritance practices between "strangers"¹⁶ and "landlords". The Europeans were unable to stop the Africans' insistence on gifts in return for their services. Rodney points out that these power struggles between Africans and Europeans continued from the 16th to the 19th century, with the locals retaining control.

However, the turning point in the dynamics of Afro-European relations came in the 19th century. With the advent of the Industrial Revolution (Rodney, 1972/2018; Acemoglu, 2002; Acemoglu et al., 2005), the "guest" had gained enough influence to refuse to cooperate on the original terms of the relationship. Rodney argues that the increasing technological and material inequalities that resulted from this revolution, combined with the evangelical revival in Europe, strengthened Europeans' belief in their cultural superiority and their mission to export their

¹⁵ I follow Rodney (1982) in characterising the African as host and the European as guest based on his account of the history of the Upper Guinea coast.

¹⁶ According to Rodney (1982), on the Upper Guinea coast, European settlers or Europeans who wanted to settle or trade on the west coast of Africa in the 18th century was referred to or described as strangers by the locals. The African rulers and owners of the land in precolonial Africa were referred to as the landlords.

civilization (Hopkins, 1980; Ditchfield, 1998). As a result, Europeans began to disregard previous agreements with their hosts and openly and systematically violated African laws and institutions - a behavior that continued until independence (Rodney, 1972/2018). This new dynamic is captured by the following figure.

Similar to the first matrix, Figure 40 consists of the same two actors, Europeans and Africans, shown in the first row. The bottom row shows the behavioral choices of the two over the course of the second period of the relationship, the colonial period. The matrix shows that the behavior of the Europeans in this new juncture was uncooperative – a departure from the original "rules of the game" of the precolonial period. However, until decolonization, the "guest" managed to persuade the "host" to cooperate through coercive measures or through various unethical and manipulative means such as "divide and rule" (Rodney, 1972/2018; Elkins, 2005; Ochonu, 2018).

Figure 40: Behaviour in the colonial interaction between Europeans and Africans

Colonial interaction		
Actors	European actor	African actor
Behaviour	Non-cooperative (Sustained by coercive means)	Obedience (under coercive rule)
	Non-cooperative (Sustained by coercive means)	Non-cooperative (Rebellion, riots, uprising, civil disobedience)

Source: Based on the author's work using information from historical relationship of both actors.

As Figure 40 shows, Africans responded to this behavior first with obedience under the burden of coercion maintained by European military superiority shortly after the pacification of the colonies, and later with a range of non-cooperative behavior, particularly in relation to the payment of the colonial tax. Africans at all levels found various ways not to cooperate with the colonial administration, as the new terms of interaction offered no significant rewards for maximizing the welfare of the natives. They were oppressed, humiliated, forced into unpaid labor, deprived of their identity and resources, completely prevented from developing their own values, and forced to change their patterns of social organization at all levels. The colonizer left little room for maneuver, he wanted it all: control over institutional rule, resources and the suppression of the cultural identity of the "host country".

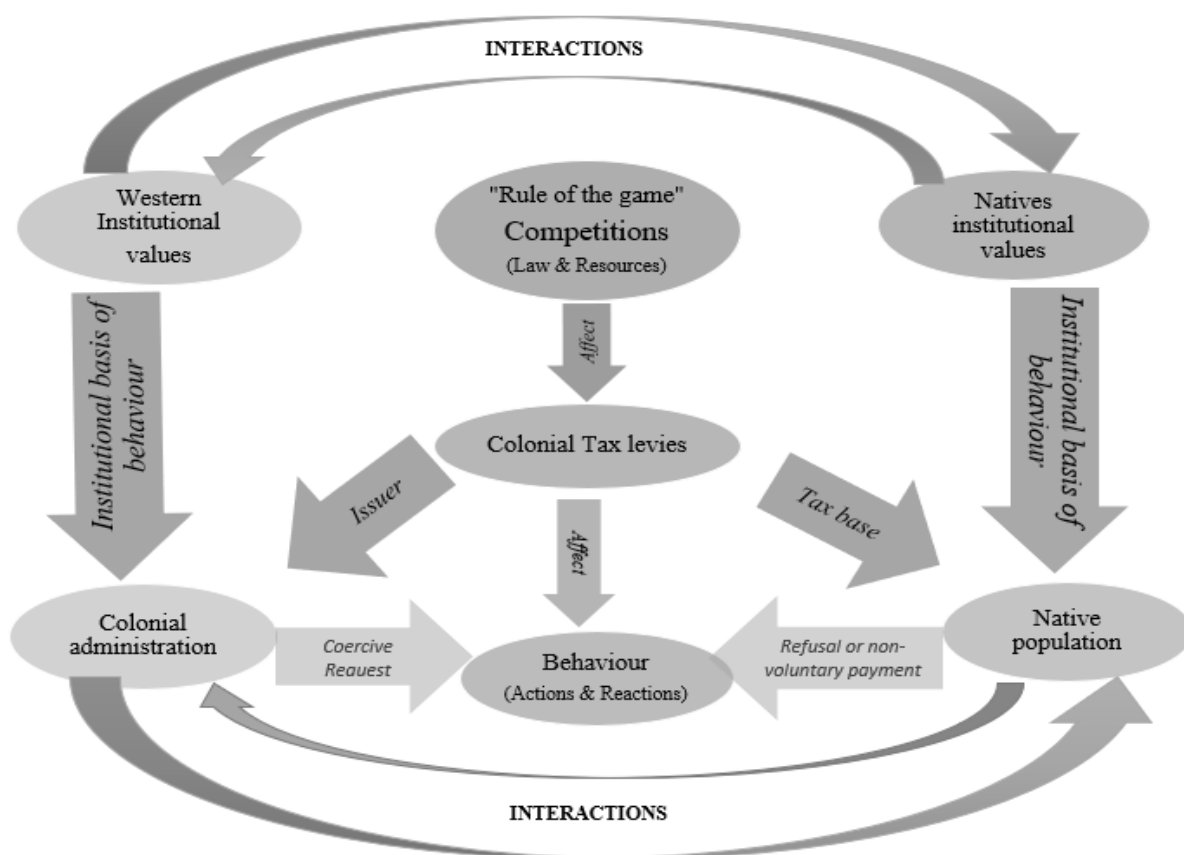
The new "rules of the game" of the new ruler left the natives with little choice: to resist the new social order at every opportunity and by all means or to endure the associated injustices under

threat of violence. In the course of the second period of this interaction, the first behaviour finally prevailed and led to the decolonization of the continent. Although native resistance was not the only factor in the decolonization of the former colonies, it was a crucial factor that ushered in the end of colonisation (Birmingham, 2008; Cabral, 2016). In the following subsections, I discuss the uncooperative attitude of Africans in the face of the new challenge.

8.4 Overview of African uncooperative behaviour during the colonial

In this subsection, I use a concrete example to illustrate the behaviour of Europeans and Africans in connection with the colonial tax. Resistance to colonial rule, which I have partly discussed in section 7 of this thesis, characterises the reaction of Africans to the behaviour of Europeans in the competitive environment of the colonial period. Resistance generally took various forms: political, economic, cultural and in the form of armed uprisings (Cabral, 2016). One of the specific grievances of Africans that quickly led to uncooperative behaviour was mainly directed against the colonial tax (Moyd, 2017; see section 7.4.2). The following figure illustrates the interaction of Africans and Europeans in relation to colonial taxation.

Figure 41: Dynamics of tax collection and payment between the colonial administration and the indigenous population



Source: Author's work based on various colonial tax literature.

Throughout the colonial period, there were numerous instances of resistance to the payment of the colonial tax by locals. These included open warfare, rebellion, civil disobedience, tax evasion, mass migration, fraud and outright refusal to cooperate with the colonial state (Moyd, 2017; Turyahikayo-Rugyema, 1976; Berman and Lonsdale, 1980; Burton, 2008; Crush, 1985; Manière, 2013). Figure 41 illustrates the dynamics surrounding the imposition of the colonial tax and the reaction of the respective actors to its introduction. First, it should be noted that Africans were no strangers to taxes and the payment of taxes was not too controversial in African society until the colonial period. Various forms of tax systems existed in many parts of the region, such as the payment of tithes or the payment of taxes in kind (Diop, 1987). Thus, the authority of the central power manifested itself in many political organisations such as the Kongo Empire, Kanem-Bornu or the Buganda Empire through the payment of tributes and tithes (Buttner, 1970).

The upper part of the figure, however, shows the competition between the two players for control over the "rules of the game" during the colonial period. As I have shown in Figure 38, the European actor's departure from the precolonial arrangement led to the introduction and imposition of European institutions that coexisted with African institutions. This coexistence is represented by the circles on the right and left sides of the circle in the top centre of the figure ("rules of the game"). The right side represents the domestic institutional value and the left side represents the European institutional value. Competition for control over the "rules of the game" dictates the emergence of demand for the colonial tax, indicated by the downward-pointing arrow.

As the figure shows, the colonial tax is levied by the European actor due to its new influence (military superiority), while the indigenous actors form the tax base. This is illustrated by the two arrows on the sides of the panel, which represent the colonial tax. The lower level of the figure, on the other hand, represents the behaviour and reaction of the two parties to the dispute. As can be seen in the figure, the tax demand is levied by the European actor using coercion. The European actor can punish non-payment of the tax with deprivation of liberty (Ochonu, 2018:126).

The new reality for the African actor led to two behaviours, as shown by the arrow at the bottom of Figure 41. It shows that the indigenous actor obeys the order under threat of force or refuses to cooperate when the opportunity arises. This is also shown in the previous matrix in Figure 40. Well-known examples of such uncooperative behaviour in the British colonies include the native revolt against the hut tax that led to open warfare in Sierra Leone (Ochiai, 2017), the

Bambatha refusal to pay the poll tax in addition to the burden of the hut tax, which led to rebellion (Guy, 2005), and local resistance to the capitation tax in Dahomey, which led to a native uprising (Manière, 2013). In many cases, resistance took the form of migration to avoid taxes, as Burton (2008) reports, or outright refusal to support the colonial administration. A notable example is the Giriama chief's refusal to assist British colonial officials with tax collection and labour recruitment, as documented by Moyd (2017).

Throughout the colonial period, in addition to the refusal to pay the colonial tax, there were other instances in which the natives did not cooperate with the colonial masters. The Mau Mau uprising against inequality in Kenya (Parry, 2016) can be cited as one such example. Another notable example of disobedience to colonial rule occurred on the eve of the First World War when the demand for indigenous labour was high. Africans were aware of the exploitative practises of their colonial masters who often collaborated with local African leaders to pay low or no wages to indigenous labour.

Under these circumstances, Africans had no incentive to respond to such demands and therefore chose to resist, even though it was illegal for locals to refuse to work. This underscores the policy of forced labour introduced by the French with the Code de l'indigénat. Faced with these abuses and the insatiable European demand for indigenous labour, which the Africans considered illegitimate, they developed various strategies to circumvent the colonial laws. For example, they fled their homes and hid when tax collectors or the colonial army approached, even though the payment of taxes was compulsory under colonial rule.

To avoid conscription at the beginning of the First World War, Africans fled to other parts of the region. Joe Lunn pointed out in his 1993 study that for every person who joined the army in the colony of Senegal to support the war effort alongside the French military, another person fled the colony to avoid conscription and sought refuge in neighbouring countries. Similar cases were reported from Nigeria, Guinea and the Dahomey colonies (Mathews, 1987). Natives also evaded conscription by crossing borders to neighbouring colonies or pursuing alternative economic activities that were less susceptible to recruitment. Some recruits feigned illness or pretended not to understand orders simply to evade conscription (Matthews, 1987), while others took up arms to escape the pressures of conscription (Ranger, 1963).

However, the uncooperative attitude of the Africans towards colonial rule did not go unpunished. In most cases, Europeans responded with violence (Debos, 2009; Lowes & Montero, 2021; Falola, 2009; Lawrence, 2010). Lawrence uses data from the French colonial period to explain how the restriction of nationalist movements led to a power struggle and

intense competition between new actors. One of the bloodiest examples of violence against nationalist movements was the decolonization war in Algeria (Clayton, 2014). In addition, Brachet & Scheele (2019a., 2019b) document punitive military actions by the French military in retaliation against the Faya people in Chad (see also Hansen, 2020). Similarly, British forces brutally suppressed the protest of the Mau Mau against the appropriation of land, the payment of taxes and the lack of political representation in Kenya (Elkins, 2005, 2011, 2014).

To summarise, African resistance to colonial rule, particularly in relation to colonial taxation, took the form of rebellion, political resistance, and armed resistance in cases such as Algeria, Zimbabwe, and Angola. This eventually led to the mass decolonization of the continent in the 1960s. Africans played an active role in the liberation movements and were anything but passive in their resistance to more than 80 years of European occupation. Having theorised the colonial influence on contemporary institutions in sub-Saharan Africa in the previous sections of this dissertation, I now turn to the data to substantiate my assumptions in the next part of the dissertation.

Part III: Construction of the colonial dataset, empirical methodology and analysis, and concluding Remarks

9. Construction of the dataset of French and British colonies: colonial public finance, definition of the variables, sources and methodology of data collection.

9.1 Colonial public finance – budget

To assess the impact of history on postcolonial institutional performance, I developed a comprehensive dataset that examines the colonial public finances of two imperial powers: France and Britain. At the heart of colonial finance is the colonial budget, which is an estimate of projected revenues and expenditures for the fiscal year in the colonies. In the French colonies, the governor-general was responsible for preparing and overseeing the budget, while in the British territories the governor of the colony managed the public finances, albeit under the influence of the British parliament (Stammer, 1967). The French governor had wide latitude in shaping the colony's public finances, whereas public finances in the British colony were subject to strict control by the British Parliament.

Although the literature distinguishes between British and French colonial policies, their colonial public finances share some similarities in terms of revenue generation (Cogneau et al., 2018). However, it was only after the Second World War that the concept of the developmental state gained prominence in the colonial policies of both empires. The effectiveness of these policies continues to be debated between colonial critics and proponents (Stammer, 1967; Rodney, 1972/2018; Huillery, 2014; Gilley, 2017; Cogneau et al., 2018). In France, this shift led to the implementation of the 'policy of association' (Labouret, 1940), while in Britain it resulted in the Colonial Development and Welfare Act of 1940 (Stammer, 1967).

Nevertheless, the inconsistency of public finances in the British and French colonies is evident, as the two empires did not pursue the same fiscal policy in all their colonies and dependencies. For example, poll and income taxes were introduced in the British colonies at different times depending on the profitability of the territory (Stammer, 1967). The Crown only supported economically disadvantaged territories. In the French colonies, the individual colonies within the federation of AOF and AEF levied little or no indirect taxes, unlike colonies such as Madagascar, Comoros, La Réunion, etc., which were not part of the federal organization. Moreover, the wealthy colonies supported the financially weaker ones (Huillery, 2014).

However, one of the features of colonial public finance, particularly after the Second World War, is the increase in per capita expenditure in both British and French colonies, especially in

the decades before decolonization (Cogneau et al., 2018). Cogneau and colleagues argue that the increase in customs revenue due to increased trade activity in the colonies could explain the subsequent rise in per capita expenditure. They believe that this period offers valuable insights into the challenges of building developmental states in Africa.

However, in this dissertation, I have already addressed the issue of development in the context of institutional performance in SSA. I linked the problem to the lingering effects of the region's colonial history, drawing on a range of evidences. My findings were particularly relevant to the question of institutional development in SSA, which is the primary focus of this dissertation. I argued that colonial states prioritized revenue maximization while minimizing development efforts. My observation and the resulting finding are consistent with Frankema's (2011) study. According to many, British and French colonial rule focused more on extraction than on building institutions to protect property rights in their state-building efforts (Acemoglu et al., 2002; Frankema, 2010; Frankema & Waijenburg, 2012, 2014). In the next subsection, however, I will examine the composition and structure of the public finances of the French colonies.

9.2 Colonial revenue and Expenditure in French and British empires

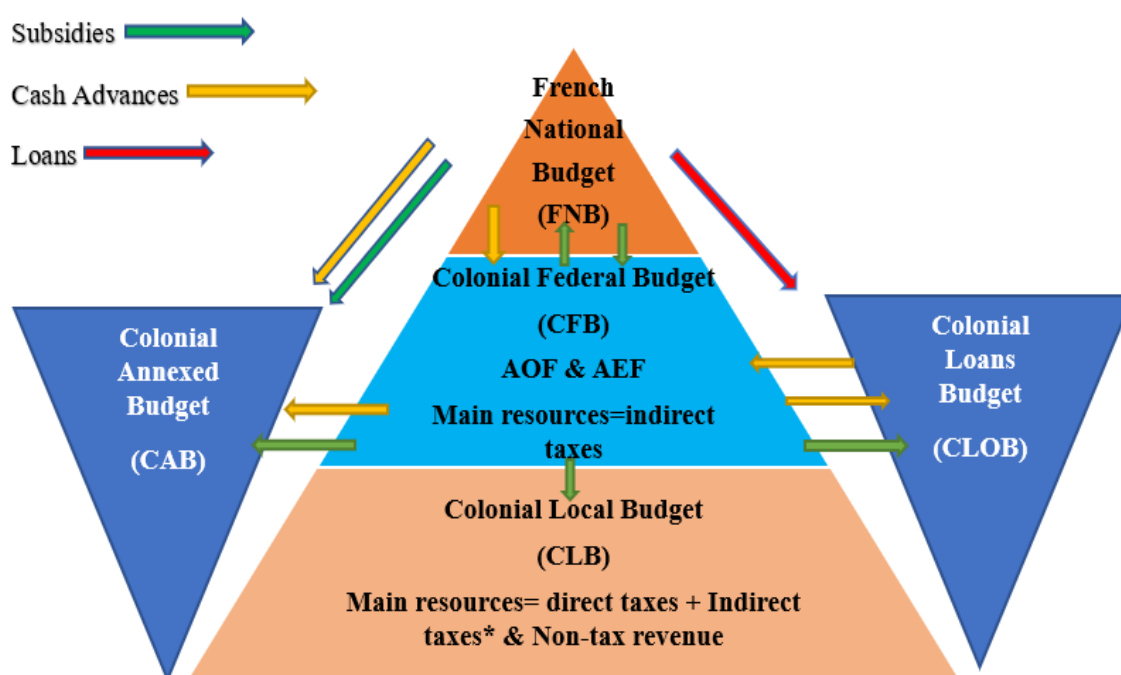
9.2.1 Colonial revenue and expenditure in French colonial empire

Colonial public finance in the French colonies was based on different budgets. My dataset focuses on 18 former French colonies in SSA, namely Djibouti, Central African Republic, Cameroon, Chad, Gabon, Republic of Congo, Benin, Burkina Fasso, Côte d'Ivoire (Ivory Coast), Guinea (Conakry), Mali, Mauritania, Togo, Niger, Senegal, Comoros, Madagascar, and Réunion. The data cover the period from 1907 to 1925 and were collected from two primary sources: the "Compte definitive des Recettes et des dépenses" (CDRD) and the "Budget du service local" (BSL) of the colonies. For the purposes of this thesis, I have identified eleven variables, five of which relate to colonial expenditure, one to population statistics and the remaining five to colonial revenue.

The original documents from which the data were taken are in French. For the sake of consistency and comparability, I have limited my analysis to the above period, which does not reflect the official date of the establishment of the colonies. For a more detailed analysis of the variations in the territories' budgets during this period, I have created a table showing how I calculated the final data. However, my research revealed that French colonial finance was based on three interacting budgets and two parallel budgets, as shown in Figure 42.

Figure 42 shows the relationships between the different budgets in the French colonial system. At the top of the pyramid is the "Budget de l'État Français" or the French National Budget (FNB). This budget is the main source of funding for both military and civilian expenditure related to colonial conquest and pacification. The FNB provides financial support to several other budgets, namely the Colonial Federal Budget (CFB), the Colonial Annexed Budget (CAB) and the Colonial Loan Budget (CLOB). The flow of funds between these budgets takes the form of loans, grants and cash advances, as shown by the green, gold and red arrows in the diagram.

Figure 42: Interaction between various French Budgets during the colonial period



Source: Based on the author's own work using primary sources - "Compte definitive des Recettes et des dépenses" (CDRD) and the "budget du service local" (BSL) of the colonies. Note that Asterix (*) means: in general, no indirect taxes, or at least very few, were levied at the local level by the territories that belonged to both the AOF and the AEF. All indirect taxes were levied by the federal governments.

The CLOB and the CAB are two parallel budgets that interact with the colonial federal budget. The CAB is directly linked to the FNB, while the CLOB operates independently and was set up specifically to fund colonial enterprises. The CAB includes the railway and health budgets. The interaction between these budgets follows a top-down pattern, with funds flowing from the national budget to the federal budget, from the national budget to parallel budgets, and then from the federal budget to local budgets.

In sub-Saharan Africa, there were two federal budgets: the federal budget of French West Africa (AOF) and the federal budget of French Equatorial Africa (AEF). These budgets mainly cover the general administrative expenses of the federal governments, public works and the repayment of the federal debt. However, from 1918 and later in 1942, the federal budgets also included expenditure on central services such as education, health, justice, security, public hospitals, workshops, printing presses and other costs previously allocated to local budgets.

The diagram also shows the flow of subsidies and cash advances from the CFB to the Colonial Loan Budget (CLOB) and the Colonial Annexed Budget (CAB). It also shows the payment and repayment of cash advances from the CLOB to the CFB and from the CFB to the CLOB, including the payment of subsidies from the CLOB to the CAB. In addition, the CFB receives customs and excise duties from all the territories of the Federation, as well as subsidies from the French national budget and other sources of revenue. However, it is the colonial local budgets (CLB) that are of particular interest to this thesis, as they exemplify the self-sufficiency envisaged by the architects of the colonial project. These budgets cover the costs of general administration and equipment for the colonies. The reason for my interest lies in the desire of the architects of European imperial expansion to minimize the financial burden on their taxpayers.

Like the French, the British also strove for self-sufficient colonies. A wide range of literature, including the work of Austin (2010), Davis & Huttenback (1986), Bobrie (1976), Marseille (1996), Lefeuvre (2006) and Huillery (2014), shows that the costs of colonial expansion in most sub-Saharan countries were relatively low compared to the contributions of European taxpayers to the colonial project. Huillery (2014) points out that the colonization of West Africa accounted for only 0.29 percent of France's annual expenditure, which was mainly focused on the military. However, this argument is countered by others who argue that French involvement in the colonial project led to significant investment in education, health and infrastructure. They also argue that a significant proportion of the United Kingdom's defense costs within the British Empire were borne by the United Kingdom itself (see sections 7 and 8).

However, it is clear from Figure 42 that the only inflow of funds to the CLB came from the federal budget in the form of grants and cash advances. The local budget received no funds directly from the French national budget or from any budget other than the CFB. Cash was always transferred from the FNB or the CLOB to the CFB and then to the CLB. Apart from the revenues already mentioned, the CLB derived most of its income from taxes, which will be discussed in more detail below.

9.2.1.1 The colonial local budget in French colonies

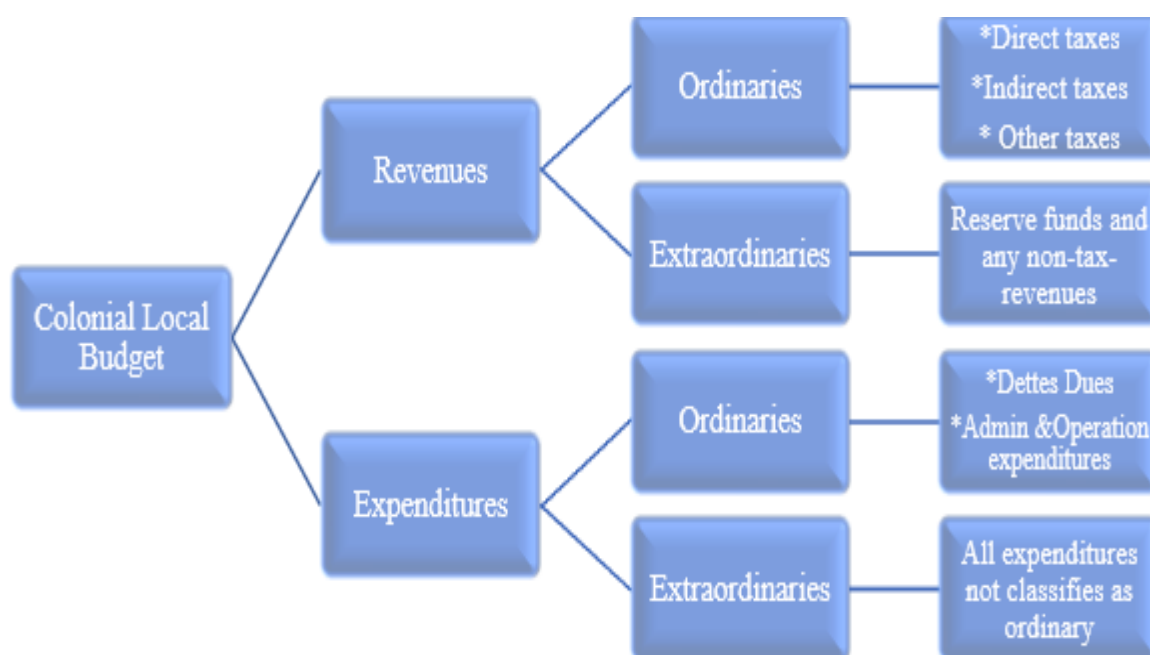
The colonial budget was the colony's financial plan, containing projected annual revenues and expenditures. In compiling my dataset, I drew on both the local colonial budget and the final revenue and expenditure accounts of 18 former French colonies. The local budget contained the projected financial details for each period, while the final accounts – "Compte définitif des dépenses et recettes" (CDRD) – prepared annually, contained the net revenue and expenditure for the year. Some of these financial documents belonged to officially designated colonies, while others belonged to territories with protectorate or military status. For example, the colony of Senegal consisted of both protectorate and directly administered territories, while Niger was a military territory and officially became a colony between 1922 and 1958.

However, final accounts were not available for all colonies. In these cases, I relied on local budgetary data. My main source for this information was the Gallica digital library, housed in the French National Library. Occasionally, there were significant discrepancies in revenue and expenditure between the local budgets and the corresponding final accounts of the colonies, with the former showing higher figures. In addition, the terminology used to describe revenue and expenditure in the budgets or final accounts of the territories was not consistent from one financial year to another. The terminology used in the colonies' budgets during the colonization period varied frequently.

In general, however, these terms referred to similar items/headings. For example, the term "indirect taxes" – "contributions indirectes" – could be described differently in the budget or final accounts of one colony than in the budget or final accounts of another colony. However, the underlying meaning of the heading remained the same. In some cases, the item was referred to as "impôts indirects" in the records of certain colonies, while in the records of other territories it had a different designation such as "contribution directes".

The local budget of the French colonies is divided into two main parts. The first part of the French local budget is the revenue part and the second part is the expenditure part. The revenue section consists of ordinary and extraordinary revenue. The ordinary revenues of the local budget of the French colonies include direct, indirect and other government revenues. However, direct revenues include all taxes levied directly on citizens, such as the capitation tax (commonly known as the poll tax in the British Empire), licence and permit fees, property tax and other taxes such as the Diouala tariff or the tax on grazing rights, etc. Despite these differences in wording, the composition of a typical local budget in the French Empire is shown in Figure 43 below.

Figure 43: Composition of the colonial local budget



Source: Based on the author's own work using primary sources - "Compte definitive des Recettes et des dépenses" (CDRD) and the "budget du service local" (BSL) of the colonies. Notes = For more details on the individual items of ordinary and extraordinary revenue and expenditure, see subsection 3 (Definition of variables).

Indirect revenues, although insignificant at the local level, mainly include stamp duties, registration fees, postal and telegraph charges, and revenues from industrial activities. Customs duties and excise taxes, which account for a significant proportion of indirect revenues, are collected at the federal level. Extraordinary revenue, on the other hand, consisted of various other sources of revenue that were not classified as direct or indirect taxes by the colonial authorities, such as revenue from printing works, fees related to the control of firearms, etc. Extraordinary revenues also included income from reserve funds, proceeds from the sale of government property, and other revenues that differed from traditional budget revenues.

The composition of the French colonial budget remained unchanged until 1913. From 1914, however, there were noticeable changes in the wording of items in the financial documents of the CLB. For example, new wording was used for revenue categories, such as "impôts perçus sur Rôles" (taxes levied on the basis of roles) instead of "contribution direct or impôt direct"; "Impôts perçus sur Liquidation" (taxes levied by liquidation) instead of "contribution indirect"; "Produits des exploitations industrielles" (revenues from industrial activities), "products received on order"; "Prélèvement ordinaire sur la caisse de réserve"; "Recettes des exercices antérieurs" and "recettes extraordinaires".

On the expenditure side, a distinction is also made between ordinary and extraordinary expenditure. Ordinary expenditure primarily includes the salaries of employees and the purchase of materials, debts (pensions), the salaries of governors and deputies, cabinet secretaries and expenditure on office furniture. It also includes expenditure on general administration (police, prisons, military, gendarmerie and judiciary), expenditure on financial services (Treasury), expenditure on industry (post, telegraphy, printing, ports, shipyards, agriculture and livestock).

Finally, ordinary expenditure includes expenditure on public works (construction and maintenance of public goods) and expenditure on social and economic affairs (education, health, shipping). In addition, on the expenditure side, various and unplanned expenses such as subsidies for national holidays or costs due to natural disasters were considered. Extraordinary expenditure, on the other hand, includes reserve funds or extraordinary income from the sale of state property as well as all other expenditure that is not part of ordinary expenditure.

9.2.2 Colonial revenue and expenditure in British colonial empire

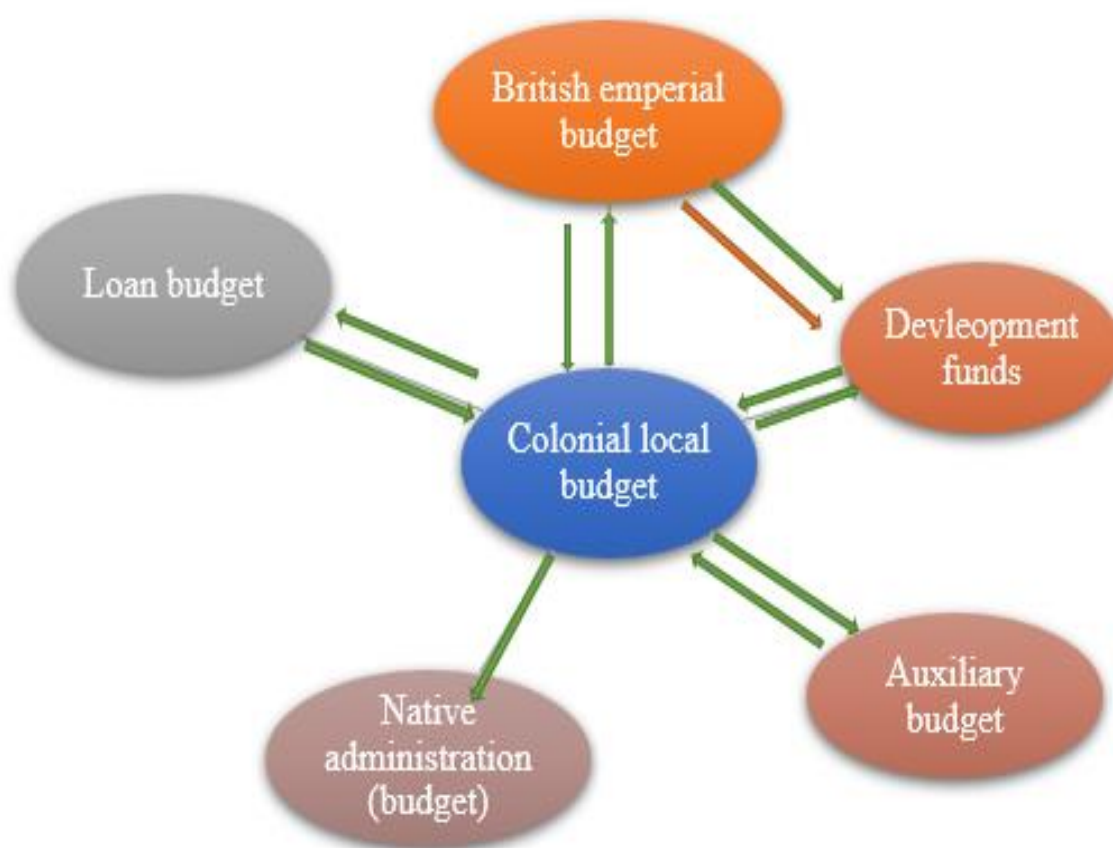
The data on the former British colonies includes 12 former colonies, namely Gambia, Ghana, Kenya, Malawi, Nigeria, Sierra Leone, Tanzania, Uganda, Lesotho, Zambia, South Africa and Botswana. The data are from the various Colonia Blue books and cover the period starting from 1900 to 1930. This was due to the availability of the data. As in France, the colonial budget was the main source of public finances for the British administration in sub-Saharan Africa. By analyzing various financial documents of the British administration, I have created a dataset that includes several historical variables. However, unlike the French system of public finance, the British approach to financial matters was very different at the local level and was not supported by multiple budgets as in France. Britain did not adopt the federal system that the French Empire used in Africa, at least not for a long time.

Although British policy on public finance in Africa varied across the different possessions of the Empire (Stammer, 1967), it is worth noting that the British condominium was a unique experiment (Daly & Daly, 2003, Daly, 2004). Although there were attempts to federalize the British colonies in Africa, these were short-lived (Frankema & Waijenburg, 2014). These attempts included the Union of South Africa, the unsuccessful fiscal integration of Kenya and Uganda, and the self-governing rule of Rhodesia (both North and South). In general, the budgets of the colonies differed, especially in British West Africa. In contrast to the French colonies, each colony had its own aid, development and credit budget.

One of the differences between the local budgets in the British and French colonies was the development of indigenous administration in the British colonies (Cogneau et al., 2018). In the British Empire, African colonies were gradually given the opportunity to establish their own local budgets and treasuries, an option that was largely absent in most French colonies due to their federal structure. The British colonies had a well-established system of native administration that was applied in almost all territories. Although Nigeria became a federal colony after the Second World War on the recommendation of Lord Lugard, the federal system of government was not a model for British policy and the predominance of native administration remained throughout the colonial period. The following diagram illustrates the structure of the British colonial budget.

Figure 44: The structure of the budget in British colonies in SSA

Imperial Grant-in-aid →
Loans →



Source: Based on the author's own work using primary sources – Colonial Bluebook and Colonial statistic in Africa in British digital Archives.

The diagram above illustrates the structure of the British budget in the African colonies. It consists of the British imperial/national budget, the development budget, the loan and auxiliary budget and the native budget. These are autonomous budgets that interacted with each other through various revenue flows. One of these streams flows to the colonial budget in the form of subsidies from the British national budget. In addition, revenue flows from the imperial budget in the form of loans and grants to the development funds budget. The diagram also shows the interaction between the loan budget and the local budget as well as between the auxiliary budget and the colonial budget.

A notable aspect of British public finance was the promotion of local public finance, which encouraged the growth of native administration. As a result, revenues from the colonial budget also flowed into the native budget in the form of grants. In contrast to the French budget structure, there was direct interaction between the colonial budgets and the British national budget. However, there were no direct revenue flows from the British national budget to the budget of the native administration or between other budgets in the structure and the budget of the native administration.

The British budget was divided into two main parts: Revenue and Expenditure. The financial data was documented in three types of financial reports: the Abstract of Colonial Revenue and Expenditure, the Comparative Annual Report of Colonial Revenue and Expenditure, and the Summary Report of Revenue and Expenditure, which separated personal emoluments from other expenditures. On the revenue side, receipts included customs duties, harbor/port dues, licences, excise duties and internal levies, court or official fees, rent from government property, income from government vessels, interest, protectorate income (native administration), miscellaneous receipts, land sales and grants.

On the expenditure side, a wide range of items were recorded, starting with expenditure on pensions and gratuities for the Governors and Colonial Secretary, and for the Native Administration (Protectorate). Other items included expenditure on the Printing Office, the Receiver-General, the Post Office, the Audit Department, the Legal Department, Education, Law Enforcement (Police, Border Guards, Prisons and Military), the Medical Department and the Government Ship. Other expenditures included grants for charitable purposes, transportation, miscellaneous services, agriculture and public works.

9.3 Definition of the variables

My dataset includes two main variables: colonial revenue and colonial expenditure. In the 2009 Financial Management System, Statistic Canada defines government revenue broadly as all potential revenue or resources received by government, excluding borrowing or inflows from previous borrowing (FMS, 2009). Similarly, the Government Finance Statistics Manual (GFSM) distinguishes between government inflows that are classified as revenue, such as taxes, fines, licenses, mining royalties and donated assets, and those that are not, such as loan repayments, privatizations and investment gains from stock markets. According to De Clerck & Wickens (2019), government revenue includes all transactions that lead to an increase in a country's net worth.

The term colonial revenue refers to all revenue generated by the colonies through taxes, subsidies, loans and other sources of revenue. In this discussion, the terms tax revenue, contribution or revenue are used interchangeably. They include capitation taxes or poll/hut taxes in the British colonies, direct taxes and indirect taxes levied on the residents or businesses of the colonies. Subsidies/grants and loans, on the other hand, represent inflows received from the colonial federal government and other third-party institutions, while other revenues include revenues from non-tax sources or revenues that were not classified as direct or indirect revenues by the colonial authorities.

For my analysis, I have excluded certain components from the calculation of total colonial government revenues. In particular, I have excluded all grants and cash received from the colonies, reserve funds and all tax rebates. This decision aims to capture the actual operational capacity of the colonies to generate revenue and meet their obligations, which is in line with the intention of the architects of the colonial project to be self-sustaining. For a more comprehensive understanding of each colony's ability to generate revenue, I will provide further details in the subsection on the source and methodology of aggregating the variables in my dataset.

9.3.1 Colonial tax revenues and other non-tax revenues

As already mentioned, colonial tax revenues consisted of indirect taxes, which were mainly collected through customs duties, and direct taxes, of which the capitation or head tax accounted for the largest share, depending on the identity of the colonizer. According to the French law of April 13, 1900, the occupied territories had to bear their own administrative costs, with the exception of military expenses. A similar decision was also taken by the British. However, one

way of meeting this requirement, particularly in the French colonies, was to introduce a compulsory per capita tax (capitation tax) in the colonies.

- **Capitation tax**, or "la taxe de capitation ou personnelle" in French, refers to a payment levied directly on every person, regardless of his or her income, property or other income or services received from the state (Evans, 1957). The amount collected by the authorities varied from one occupied territory to another, and when it was introduced in French West Africa, the capitation tax was levied exclusively on natives until 1918 (Idrissa, 1993). Although the British were not known for raising most of their revenue through direct taxation, they did levy capitation taxes on their subjects with varying degrees of success. But the effort was quickly abandoned in many of the British colonies due to the controversial nature of the tax (Redding, 2000). However, I define the following terms of colonial revenue as follows
- **Direct taxes**: indicates the sum of taxes levied directly on individuals in the colonies, either for a remunerated activity or independently (i.e. capitation tax). These were mainly capitation taxes, tax patents, license taxes and other taxes levied directly on individuals.
- **Indirect taxes**: they consist of the revenues generated by indirect taxation. Given the wide range of indirect taxes, I have focused on revenues from customs and excise duties (imports and exports) and from consumption taxes.
- **Other taxes**: these include revenues from sources other than those mentioned above. They include a wide range of indirectly collected revenues such as fees, fines or other revenues collected by the colonial authorities through certain institutions such as post offices, registration offices, etc.

9.3.2 Colonial public goods expenditures

In the previous section, I recognized the diversity of colonial administrative role. For the purposes of this study, however, I focus on colonial expenditures on public goods. These expenditures include law and order (police and prisons), public works, healthcare, legal services (especially judicial expenditures), and education.

I focus on public goods expenditures to emphasize the contrasting differences between developed and developing countries (former SSA colonies), which I attribute to the colonial state (Acemoglu et al., 2002). Colonial states exhibit significant differences in their fiscal

performance, especially in the provision of public goods (Frankema, 2010, 2011; Frankema & Waijenburg, 2014; Cogneau et al., 2018).

- **Prison and Expenditures:** this category refers to expenditure on police and penal institutions in each colony. This includes staff salaries, the purchase of various materials (such as clothing, furniture, ammunition, etc.) and other related expenses. In addition, depending on the colony, expenditures for other colonial law enforcement units such as the "gendarmerie", the "gardes de cercles" and the "gardes indigènes" are also included in police expenditures. Before the Second World War, the police forces played a crucial role in maintaining order in the colonies and fulfilled several functions under different names (Brunet-la Ruche, 2012).
- **Public Works Expenditures:** this category includes all colonial expenditure on wider infrastructure, including the construction and maintenance of public buildings such as schools and hospitals. It also includes transportation systems such as roads, railroads and bridges, as well as public spaces such as parks and squares. In addition, public services such as water supply, electricity grids, dams and other important facilities also fall under this category.
- **Healthcare Expenditures:** healthcare expenditure includes all colonial spending on healthcare facilities, such as public hospitals and health centers. It also includes expenditure on disease prevention, hygiene, and public sanitation services. This category includes wages for health personnel and the purchase of supplies to improve public health.
- **Education Expenditures:** education expenditures refer to funds allocated to schools, universities, and other private, religious, or public educational institutions under the colonial system. This category includes expenditures for educational personnel, the purchase of materials, and all educational subsidies granted to the colonies by the colonial authorities.
- **Justice Expenditures:** expenditure on the judiciary includes all expenditures on the administration, operation or support of civil and criminal courts, both indigenous and European. It includes the salaries of judges and lawyers as well as all materials purchased for the courts. However, it should be noted that most of the data collected on the judiciary does not distinguish between indigenous and European judicial expenditures.

10. Data source, methodology and aggregation of the French and British dataset

10.1 Source of French and British dataset

The French data were mainly compiled from the "Budget du service local" (BSL) and the "Compte définitif des recettes et dépenses" (CDRD), which are available in the digital library Gallica of the "Bibliothèque Nationale de France". The BSL is the local budget and reflects the annual budget forecasts for the colonies, while the CDRD shows the final and definitive revenue and expenditures for each year. These documents are duly signed and certified annually by the respective colonial authorities. In cases where the "compte définitif" was not available for certain years, I have relied on local budget data as an alternative.

In contrast to the public finances of the French colonial government, British colonial public finances were summarized in a single budget. This information comes from the colonial Blue Book, which is accessible via the British online archives. The Blue Books served as a repository for primary data on the British colonial fiscal system in the former sub-Saharan colonies. These Blue Books contained the summary of the colonies' revenues and expenditures as well as the annual reports detailing the colonies' revenues and expenditures. The practice of statistical recording was introduced following the Ordinance of 1843, which aimed to improve the accuracy of data collection on revenues and expenditures in the British possessions during the fiscal year.

Under this system, the revenues of all colonies were summarized in a comparative annual report, while the expenditures of the colonies were documented in a corresponding comparative annual expenditure report. This meticulous approach provided a comprehensive understanding of the financial position of the British colonies during this period. The Blue Book also contained a summary report of revenues and expenditures, which distinguished personal emoluments from other expenditures, and from which I have also extracted some data. However, after aggregating the revenue and expenditure data for the two imperial powers, I have calculated their per capita values using Frankema and Jarven's population dataset, as population statistics during the colonial period are considered unreliable (Manning, 2010, 2014; Frankema & Jerven, 2014; Ittman, 2022)

10.2. Methodology and construction of the French and British dataset

I compiled my dataset by extracting and recording information from various sources and meticulously documented any differences I found in the data between colonies, including discrepancies in accounting headings or items, summarized information, omissions, and the

reasons for these differences. First, I calculated the data for my first variable, total net revenue in 1907, which includes all tax and non-tax revenue minus any grants/subsidies, transfers or revenue not generated by the colonies, tax refunds, and reserve fund revenue. Note that I use the terms "income", receipt," and "contribution" interchangeably to refer to revenue.

However, due to differences in acquisition dates of the colonies and the timing of the conquest, some territories became official colonies or protectorates before others. In addition, the availability of official public finance data (missing data) for all colonies included in my dataset posed an unavoidable challenge in constructing the dataset. These patterns are reflected in the construction of the dataset. For example, some territories, such as the colony of South Africa, became a union under the supervision of the British in 1910, ending centuries of Dutch rule, so I do not have data from the Blue Book after 1910.

In other cases, such as Nigeria, Ghana and Senegal, I have compiled data from different parts of the colony to aggregate the total revenue for the area. For example, in Nigeria, I calculated the revenues of Northern and Southern Nigeria to arrive at the total revenue for the colony. Similarly, in Senegal, I added the revenues of the “territoires d’administration directe” and the “territoires des pays de protectorat” to arrive at the total revenues for Senegal. I followed the same procedure in Ghana. In addition, as with the calculation of revenues, I aggregated the expenditures of the individual colonies for the provision of colonial public goods using the same method.

10.2.1 Aggregation of the French dataset

I have collected data on the revenue and expenditure of Djibouti, the Central African Republic, Cameroon, Chad, Gabon, the Republic of the Congo, Benin (Dahomey), Burkina Faso, the Ivory Coast (Côte D’Ivoire), Guinea, Mali (French Sudan), Mauritania, Togo, Niger, Senegal, the Comoros, Madagascar, and La Réunion from 1907 to 1925. I have excluded the period 1914-1918 because of the fluctuations in revenue caused by the war. However, the data extraction for La Réunion only covers the period from 1907 to 1923, and I have excluded the war period for all the colonies in my dataset. The aggregation was done as follows:

From 1907 to 1913, Total Net Revenues = [Direct taxes (Contributions directes/Impôts Directs) + Indirect taxes (Contributions indirectes/Impôts Indirects) + Other taxes (Autres Produits divers)]

From 1919 to 1925, Total Net Revenue = Direct taxes (Contributions sur Rôles) + Indirect Taxes (Produits des exploitations industrielles + Droit d’enregistrement + Timbre) + Other revenues (Domaines + Forêts + Produits percus sur ordre de recettes + recettes extraordinaires)

Police and Prison Expenditures (Dépenses de police et Prisons) = Personnels + Matériels

Public Works Expenditures (Dépenses de Travaux Public) = Personnels + Matériels

Healthcare Expenditures (Dépenses des services Médicaux) = Personnels + Matériels

Education Expenditures (Dépenses d'enseignement) = Personnels + Matériels

Justice Expenditures (Dépenses Judicaire) = Personnels + Matériels

One of the difficulties I encountered in compiling the French data was the constant change in the names of the headings and the revenue and expenditure items in the financial documents. As I have already mentioned, the headings of the budget in the accounting documents from 1907 to 1913 differed from those of the period 1919 to 1925, and this also applied to various items in the documents. For example, direct taxes in the first period (1907-1913) were called "Impôts directs" or "Contributions directes", while the same heading in the second period (1919-1925) was called "Contributions sur rôles". In some years, the heading for police and prisons, for example, was called "dépenses des gardes indigènes" or was recorded under the heading "troupe indigènes". Details of these changes can be found in the appendix.

10.2.2 Aggregation of the British dataset

In order to aggregate the data from the British colonies, I extracted the revenue and expenditure data at different points in time for 12 former colonies, namely Gambia, Ghana, Kenya, Malawi, Nigeria, Sierra Leone, Tanzania, Uganda, Zambia, Lesotho, Botswana and South Africa. With the exception of the last four colonies, the data collected from the British colonies cover the period from 1907 to 1925. For colonies such as South Africa, Zambia, Lesotho, Réunion and Botswana, I collected the financial data at a different point in time.

For example, South Africa's revenue and expenditure data cover the period from 1900 to 1905 and Zambia's data cover the period from 1923 to 1930, while Lesotho's data were only available for the period from 1926 to 1929 and Botswana's data for the period from 1903 to 1912. I have adopted a similar aggregation approaches to that used for the French colonies by calculating the total amount of revenue for each British colony. On the expenditure side, I also calculated the sum of each expenditure variable for each colonial territory listed in my dataset. However, to obtain the final result, I divided all the aggregated revenue and expenditure variables by the population estimate provided by Frankema & Jerven. I applied the following formula to obtain the total value of each variable for each colony.

Total Net Revenues = [Direct taxes (Total of License, Excises, & C + Total of Protectorate Revenue) + Indirect taxes (Total of Customs + Port Dues, + Post Office Revenue) + Other Revenue (Fees of Court or Office & C + Rents of Government Property Revenue)]

Police and Prison Expenditures = Personal Emolument + other charges (material purchases)

Public Works Expenditures = Personal Emolument + other charges (material purchases)

Healthcare Expenditures = Personal Emolument + other charges (material purchases)

Education Expenditures = Personal Emolument + other charges (material purchases)

Justice Expenditures = Personal Emolument + other charges (material purchases)

Note that I have also included expenditure on law enforcement (constabulary) in colonies such as Ghana and Nigeria in the total expenditure on police and prisons. Similarly, I have added expenditure on sanitation and asylum to the total expenditure on healthcare. In addition, I have included all expenditure on education, whether provided by the colonial government or by private donors such as missionaries or other third parties. Further details on the construction of the British colonial dataset can be found in the appendix. The next subsection, however, examines various descriptive statistics to measure the variation within and between the French and British colonial empires in SSA.

10.3 Descriptive statistic

The aim of this analysis is to examine colonial statistics in sub-Saharan Africa, focusing on the fiscal patterns of the British and French colonial empires. The analysis aims to uncover differences between the colonies in sub-Saharan Africa in terms of revenue generation and development investment. It aims to shed light on the fiscal priorities of colonial administrations and their impact on economic and institutional development, and how these priorities may have contributed to resistance to colonial rule.

10.3.1 Descriptive statistic at the group level

I begin the description of colonial statistics with Table. 5, which provides a comprehensive and comparative overview of fiscal dynamics within and between the colonial empires of Britain and France in SSA. The table illustrates remarkable differences in revenue patterns, which are particularly evident in the case of the French Empire. Given that the provision of public goods in the French Empire took place at the colony level, I have categorised the French colonial territories in SSA into five colonial groups: two federated colonies, namely French West Africa and Equatorial Africa (AOF and AEF), trusteeship territories and non-federated colonies

(NFC). In order to measure the performance of the colonizers, I have included the British colonies. The table shows significant differences in revenue generation and colonial investment in development between the different components in the table.

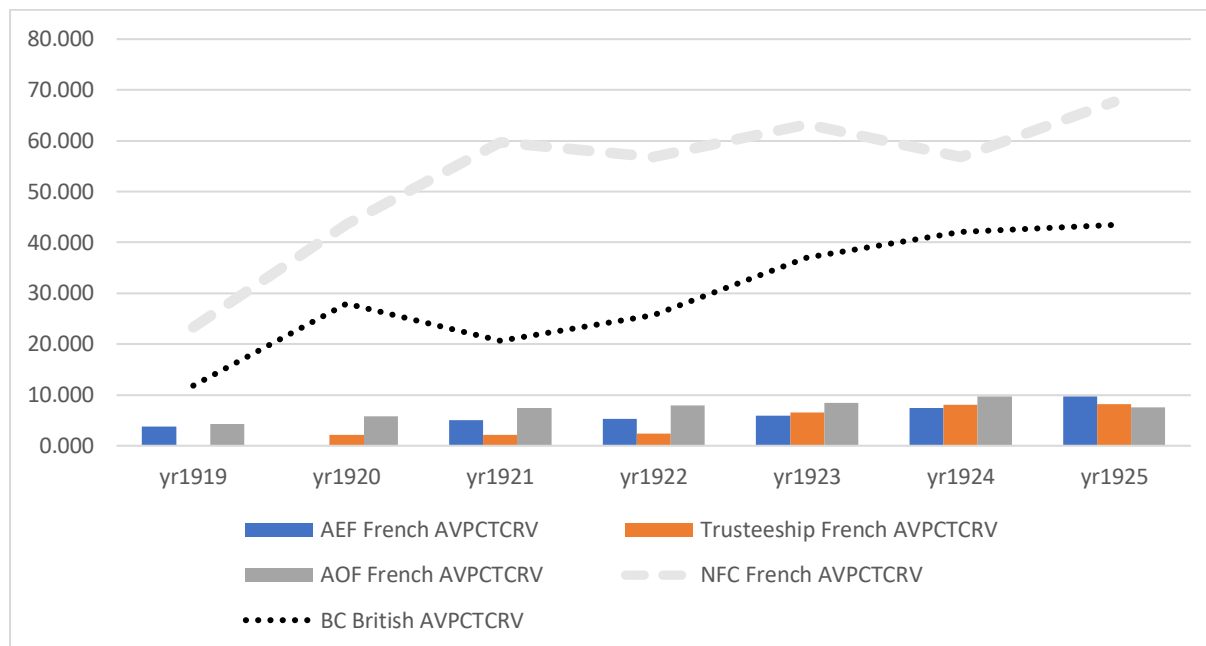
Table 5: Per capita values in French Franc of Revenue and expenditure in French and British colonies in SSA 1919-1925.

Group	Colony	Variable	1919	1920	1921	1922	1923	1924	1925
AEF	French	AVPCTCRV	3.831	0.000	5.033	5.228	5.919	7.422	9.653
Trusteeship	French	AVPCTCRV	0.000	2.174	2.120	2.419	6.609	8.103	8.216
AOF	French	AVPCTCRV	4.309	5.793	7.454	7.966	8.491	9.674	7.510
NFC	French	AVPCTCRV	23.294	43.639	59.717	56.825	63.214	56.764	67.669
BrnC	French	AVPCTCRV	11.827	27.965	20.707	25.631	36.986	42.107	43.444
AEF	British	AVPCTCEXP	1.091	0.000	2.010	2.039	1.889	1.929	2.168
Trusteeship	British	AVPCTCEXP	0.000	0.577	0.901	0.727	2.147	2.853	3.850
AOF	British	AVPCTCEXP	1.650	2.151	2.613	2.852	3.183	3.438	2.712
NFC	British	AVPCTCEXP	6.162	11.159	11.431	9.779	11.646	11.717	18.338
BrnC	British	AVPCTCEXP	2.881	7.914	10.417	11.093	11.193	13.677	18.106

Source: author's work using data from the French "compte des recettes et revenus" in the digital library (Gallica) and Statements of revenues and expenditures in the British colonial Bluebooks. Note: **AEF**= Afrique Équatoriale Française (French Equatorial Africa – Central African Republic, Chad, Gabon Congo Republic); **AOF**= Afrique Occidentale Française (French West Africa – Benin, Burkina Fasso, Côte D'ivoire, Guinea, Mali, Mauritania, Niger, Senegal); **NFC**= Non-federated colonies (Comoros, Madagascar, Djibouti); **BrnC**= British colonies (Gambia, Ghana, Kenya, Malawi, Nigeria, Sierra Leone, Tanzania, Uganda) Trusteeship territories (Cameroon and Togo). **All values in the table are in French currency, including the British data, and have been aggregated by calculating the average values.** You can see the conversion table in the appendix. Note also that Britain and France held other colonies in Africa other than the ones listed in my tables. Nevertheless, they reflect the majority of French possessions in Africa.

The data show that between 1907 and 1925 the non-federated colonies raised more revenue and spent more on development than the federated and trusteeship colonies. Notably, the federated colony of French West Africa extracted more revenue from the local population than it invested in colonial development. However, it outperformed the federated colony of Equatorial Africa and the trusteeship colonies in the provision of public goods. In contrast to the rest, the trusteeship territories of Cameroon and Togo, both former German colonies incorporated into the empire after World War I, proved to be underperformers. It lagged behind all the colonial groups in the French Empire in terms of both revenue and expenditure on public goods, reflecting a delayed integration into the colonial economic structure. The following graph illustrates the disparity described above.

Figure 45: Comparative statistics and dynamic of gross revenue in different colony groups in British and French empire in SSA.

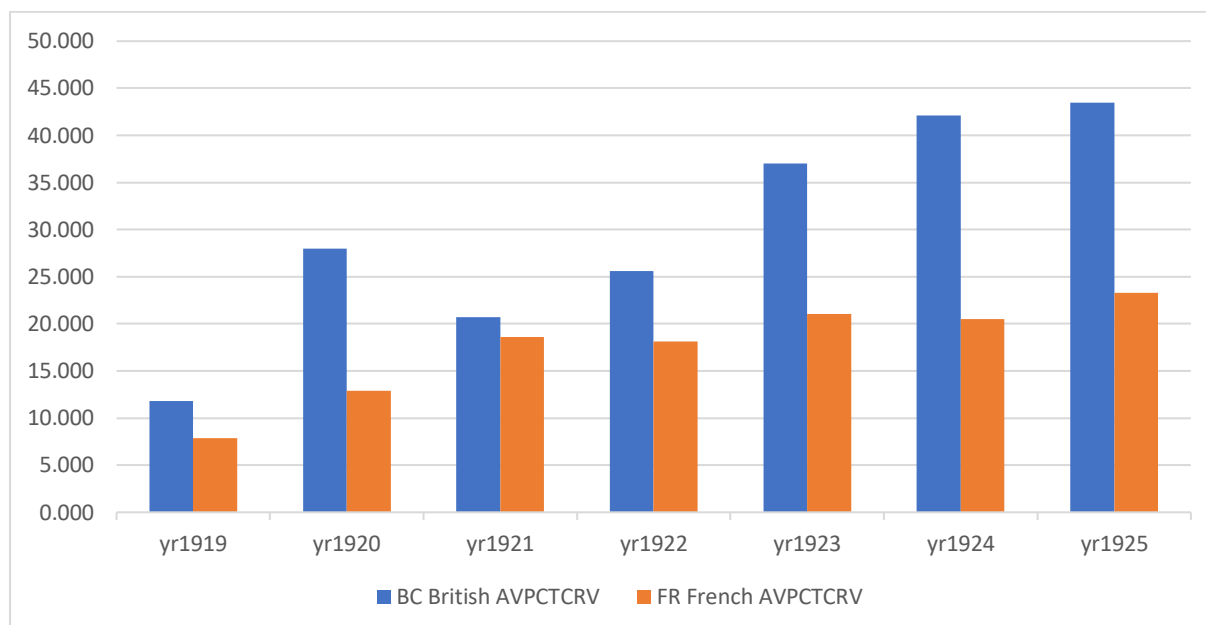


Source: author's work using data from the French "compte des recettes et revenus" in the digital library (Gallica) and Statements of revenues and expenditures in the British colonial Bluebooks. All values are in French Franc.

Although the French later caught up, the average revenue in British Africa exceeded the average gross revenue in the French colonies south of the Sahel. This is despite the rising trend in revenue in the non-federated colonies of France and in the British colonial territories. The data presented in Figures 45 and 46 show that the gap in revenue collection widened between 1919 and 1925. Figure 45 shows that the non-federated territories of Madagascar, Comoros and Djibouti collected more revenue than the British colonies in the sample, which includes both the federation (AOF and AEF) and the French trust territories.

However, Figure 46 shows that the British outperformed the French colonies in average total colonial revenue per capita between 1919 and 1925, and did so in every consecutive year of this period. This dynamic can be attributed, at least in part, to the tax collection strategy pursued by the British administration. It favoured indirect taxes, which were easy to collect, as opposed to direct taxes, which were favoured by the French and came mainly from the poll tax, which was controversial and contested by the native population in every respect.

Figure 46: Comparative statistic of Per capita gross colonial revenue in French Franc in British and French colonies in SSA 1919-1925.



Source: author’s work using data from the French “compte des recettes et revenus” in the digital library (Gallica) and Statements of revenues and expenditures in the British colonial Bluebooks. All values are in French Franc.

A characteristic feature of European imperialism in Africa is its minimalist approach to investment in key areas of development. These areas include social and economic sectors (i.e. health and education), infrastructure (public works — roads, bridges, ports, railroads, etc.) and general administration such as the justice system (Frankema, 2011). According to Frankema, the commitment of the colonial rulers to finance development expenditure was minimal compared to the taxes collected from the local population. Despite the use of different colonial strategies of governance and revenue generation, the underlying dynamics remained largely the same for both the French and British colonial state builders. The following table illustrates this pattern.

The tabular data below reveal a general trend indicating that all five colonial groups spent less on the development efforts compared to the revenues generated in their respective colonies. There was also a consistent disparity within the French Empire. The administrations of the four French colonial groups – AEF, AOF, Trusteeship territories and NFC – had different levels of investment in their colonies and generated different levels of revenue. The NFC in particular stands out as it invested more in public goods and generated higher revenues than the other colonial groups within the French Empire. This pattern is illustrated in the following graph.

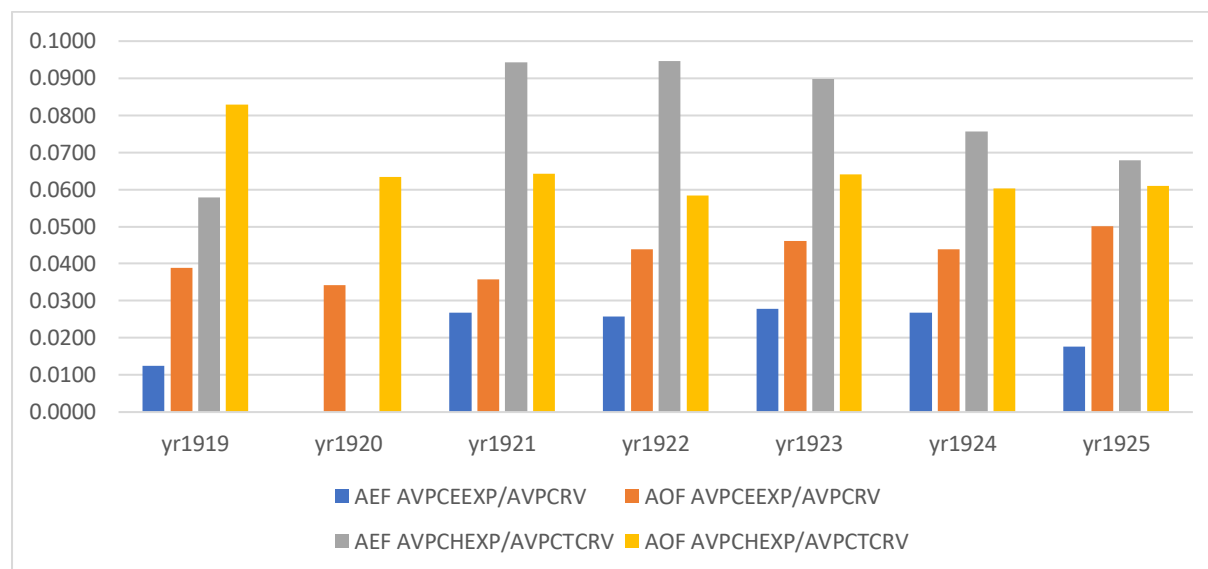
Table 6: Per capita value in French Franc of public goods spending by item in British and French colonies SSA 1919-1925.

Group	Colony	Variable	1919	1920	1921	1922	1923	1924	1925
AEF	French	AVPCJEXP	0.001	0.000	0.001	0.001	0.001	0.000	0.000
Trusteeship	French	AVPCJEXP	0.000	0.018	0.089	0.053	0.143	0.173	0.178
AOF	French	AVPCJEXP	0.019	0.023	0.024	0.026	0.031	0.032	0.022
NFC	French	AVPCJEXP	0.532	0.816	0.948	0.934	0.897	0.876	1.190
BrtC	British	AVPCJEXP	0.173	0.342	0.400	0.399	0.543	0.633	0.669
AEF	French	AVPCEEXP	0.048	0.000	0.135	0.135	0.164	0.199	0.170
Trusteeship	French	AVPCEEXP	0.000	0.051	0.114	0.199	0.249	0.330	0.419
AOF	French	AVPCEEXP	0.168	0.198	0.266	0.350	0.392	0.425	0.377
OFC	French	AVPCEEXP	0.466	0.586	0.231	0.858	1.169	0.623	1.448
BrtC	British	AVPCEEXP	0.166	0.323	0.512	0.498	0.711	0.898	1.051
AEF	French	AVPCHEXP	0.222	0.000	0.474	0.495	0.531	0.561	0.656
Trusteeship	French	AVPCHEXP	0.000	0.186	0.208	0.128	0.667	0.888	1.016
AOF	French	AVPCHEXP	0.357	0.368	0.479	0.465	0.544	0.584	0.458
NFC	French	AVPCHEXP	1.222	1.411	1.443	1.579	1.520	1.871	2.585
BrtC	British	AVPCHEXP	0.876	1.816	2.052	2.031	2.703	3.275	3.705
AEF	French	APCPWEXP	0.224	0.000	0.456	0.453	0.260	0.329	0.334
Trusteeship	French	APCPPEXP	0.000	0.149	0.271	0.209	0.677	0.957	1.529
AOF	French	APCPPEXP	0.635	0.849	1.031	1.165	1.336	1.447	0.921
NFC	French	APCPPEXP	2.725	6.605	7.716	4.838	6.337	6.918	10.516
BrtC	British	APCPPEXP	1.113	4.062	5.829	6.600	5.202	6.510	11.836
AEF	French	APCPPEXP	0.597	0.000	0.944	0.956	0.933	0.839	1.008
Trusteeship	French	APCPPEXP	0.000	0.173	0.219	0.136	0.411	0.506	0.708
AOF	French	APCPPEXP	0.509	0.714	0.813	0.847	0.880	0.952	0.934
NFC	French	APCPPEXP	1.218	1.742	1.093	1.570	1.723	1.429	2.599
BrtC	British	APCPPEXP	0.554	1.371	1.624	1.565	2.033	2.361	2.325

Source: author's work using data from the French "compte des recettes et revenus" in the digital library (Gallica) and Statements of revenues and expenditures in the British colonial Bluebooks. Note also that Britain and France held other colonies in Africa other than the ones listed in my tables. Nevertheless, they reflect the majority of French possessions in Africa.

The graph below shows the distribution of colonial revenue within the Colonial Federation of Equatorial and West Africa between 1919 and 1925. It shows the per capita proportion of funds allocated to education and health as a percentage of total colonial revenue per capita. I have chosen to pay particular attention to these two variables as they have a significant impact on economic growth and development, as highlighted in many research papers (Hanushek & Woessmann, 2010; Glewwe et al., 2014; Alali, 2022). Investment in education contributes to a country's ability to produce a skilled workforce in development-enhancing fields such as science, technology and mathematics. It also facilitates the establishment of vocational training programs that are aligned with a country's resource endowments and industrial needs. This in turn helps to reduce the unemployment rate and promote entrepreneurial activities.

Figure 47: Proportion of per capita public goods expenditures in French Franc in gross colonial revenue in French Empire.



Source: author's work using data from the French "compte des recettes et revenus" in the digital library (Gallica) and Statements of revenues and expenditures in the British colonial Bluebooks.

Furthermore, a solid health infrastructure in a country plays a crucial role in the well-being of its citizens and thus increases the efficiency of its workforce, which in turn increases economic productivity. The link between health and economic growth has long been recognized in the empirical literature on economic development (Bloom et al., 2018; Ridhwan et al., 2018). A healthy population also reduces the fiscal burden on government spending in exceptional situations such as pandemics and curbs public healthcare costs, freeing up resources for other pressing needs. Health has a direct impact on economic growth by increasing labor productivity and reducing absenteeism in the workplace (Ridhwan et al., 2022).

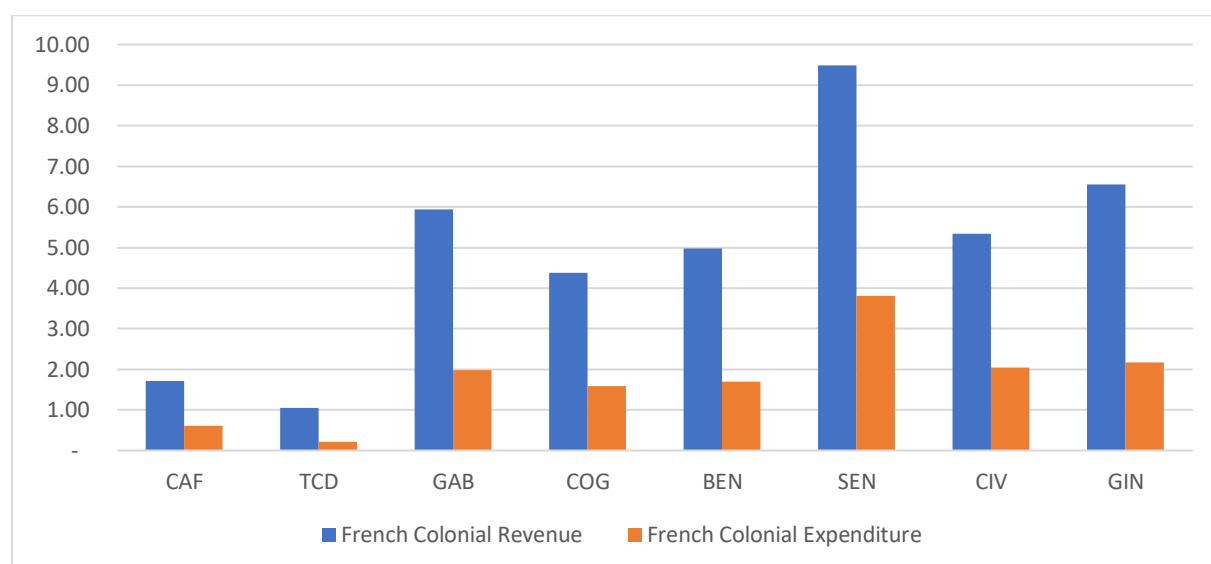
As the chart above shows, the proportion of colonial revenue spent per capita on education and healthcare in French West Africa was higher than the proportion spent in French Equatorial Africa. It's important to emphasize that these two colonial entities were important components of the larger French colonial empire in sub-Saharan Africa. This comparative analysis not only sheds light on France's spending patterns in its colonies, but also provides valuable insights into its ability to raise revenue. As a result, it underscores the nature of the institutions supported by the administration and reveals a notable deficit in development efforts in postcolonial Africa.

In summary, the Federation of French West Africa has a better economic performance in terms of revenue and expenditure compared to the Trusteeship territories and the Federation of French Equatorial Africa. This trend can be seen in the graph below, which shows the total revenue

and expenditure per capita in the four colonies of French Equatorial Africa (Central African Republic, Chad, Congo and Gabon) and in the four colonies of French West Africa (Benin, Senegal, Côte d'Ivoire and Guinea).

As the figure shows, the colonies of French West Africa outperform their counterparts in French Equatorial Africa in terms of both revenue and investment in development. The economic disparity between these two federations has been extensively documented in the colonial literature, with each federation posing different challenges to the colonizers, influenced by factors such as resource endowments. More detailed information can be found in section 5 of this dissertation.

Figure 48: Average Per Capita French Colonial Revenues and Expenditures 1907-1925

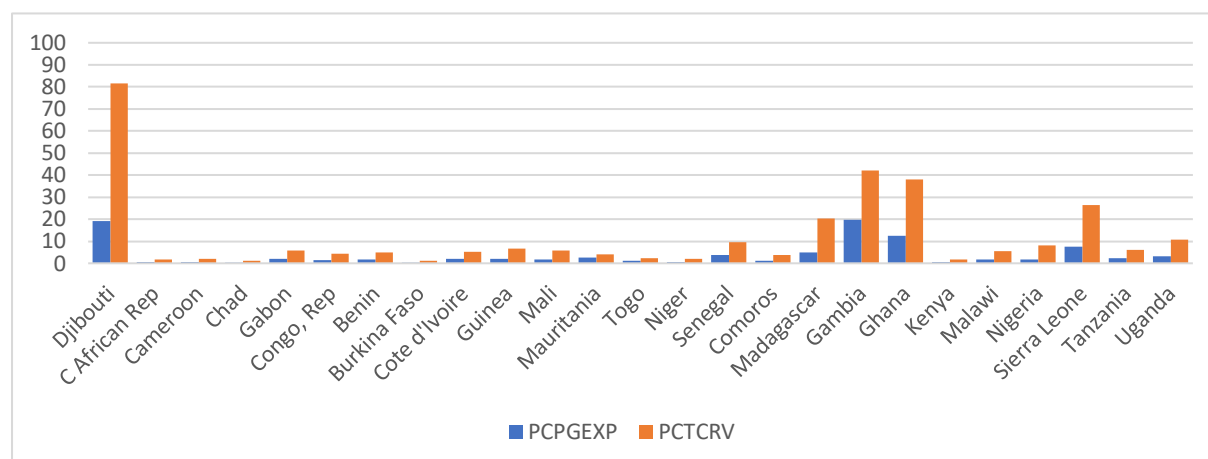


Source: author's work using data from the French "compte des recettes et revenus" in the digital library (Gallica) and Statements of revenues and expenditures in the British colonial Bluebooks.

10.3.2 Descriptive statistic at the colony level

Figure 49 shows the distribution of colonial revenue and expenditure on public services (including health, justice, education, law enforcement, and public works) per capita, expressed in French francs, for each of the British and French colonies. The overall trend in the graph shows that both imperial administrations allocated minimal, if any, resources to the advancement of their colonies, especially when compared to the substantial tax burdens imposed on the local population, as a significant portion of colonial revenue came from taxes. Furthermore, the chart shows that colonies with higher revenues tended to spend a lower proportion of their income on public services.

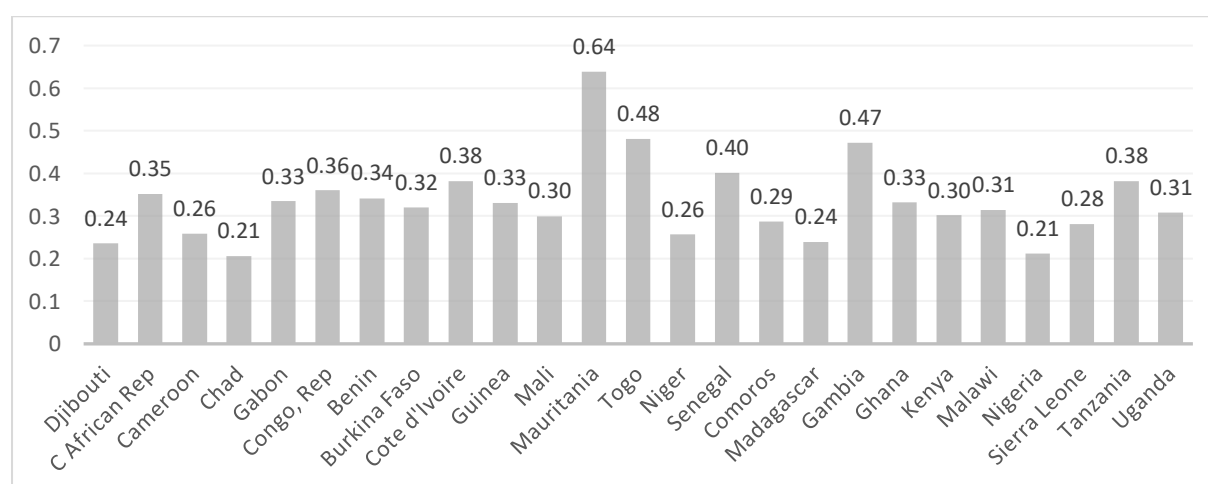
Figure 49: Per capita tax revenues and per capita expenditure on colonial public goods in French francs in SSA French and British colonies between 1907 and 1925



Source: author's work using data from the French "compte des recettes et revenus" in the digital library (Gallica) and Statements of revenues and expenditures in the British colonial Bluebooks.

Analysis of the chart shows that Djibouti, for example, generated a considerable amount of revenue per capita (around 82 French francs), outperforming not only other French colonies but also some British colonies. However, Djibouti appears to have spent a smaller proportion of its revenue on development (around 19 French francs). This pattern can also be observed in Madagascar, Sierra Leone and Ghana. A plausible explanation for this dynamic is the transfer of funds from the more economically productive colonies to the less productive ones – a common practice in both empires, which is confirmed by their financial records. For more detail, see the colonial blue books and the French "Comptes recettes des dépenses".

Figure 50: Per capita share of public goods expenditures in gross colonial revenue per capita in British and French colonies 1907-1925.

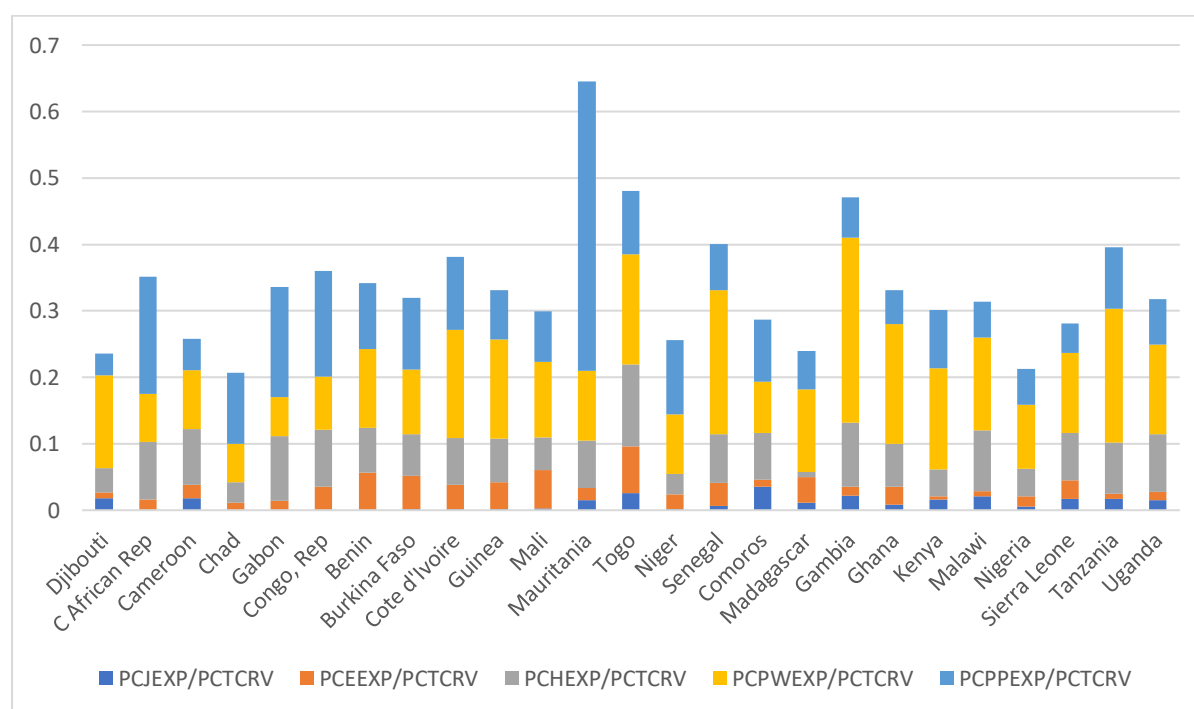


Source: author's work using data from the French "compte des recettes et revenus" in the digital library (Gallica) and Statements of revenues and expenditures in the British colonial Bluebooks.

Figure 50 is a clear corroboration of the revenue and expenditure trends mentioned in Figure 49. It illustrates the relationship between public goods per capita and gross revenue per capita in each colony of the two empires and sheds light on certain aspects of colonial revenue and expenditure patterns. For example, despite Mauritania's relatively modest average per capita revenue between 1907 and 1925 (around 4 French francs per capita), a significant proportion was spent on public goods, as the figure shows. The data show that more than 60 percent of Mauritanian taxes were used for the upkeep of the colony.

A similar pattern can be seen in other colonies, including the Central African Republic, the Republic of Congo, Côte d'Ivoire, Togo, Senegal, Gambia and Sierra Leone. However, if we look at the colonial administrations holistically, we notice that they provided minimal resources for the development of their colonies in terms of five key indicators: Education, Health, Justice, Public Works, and Law Enforcement. This raises the important question of which areas the colonial government prioritised in its investments and which areas it paid the least attention to. Such an assessment provides valuable insights into the types of institutions that were allowed to flourish by the colonial authorities and the nature of the state to emerge. This is illustrated in the chart below.

Figure 51: Per capita distribution of colonial public goods per item in SSA 1907-1925.



Source: author's work using data from the French "compte des recettes et revenus" in the digital library (Gallica) and Statements of revenues and expenditures in the British colonial Bluebooks.

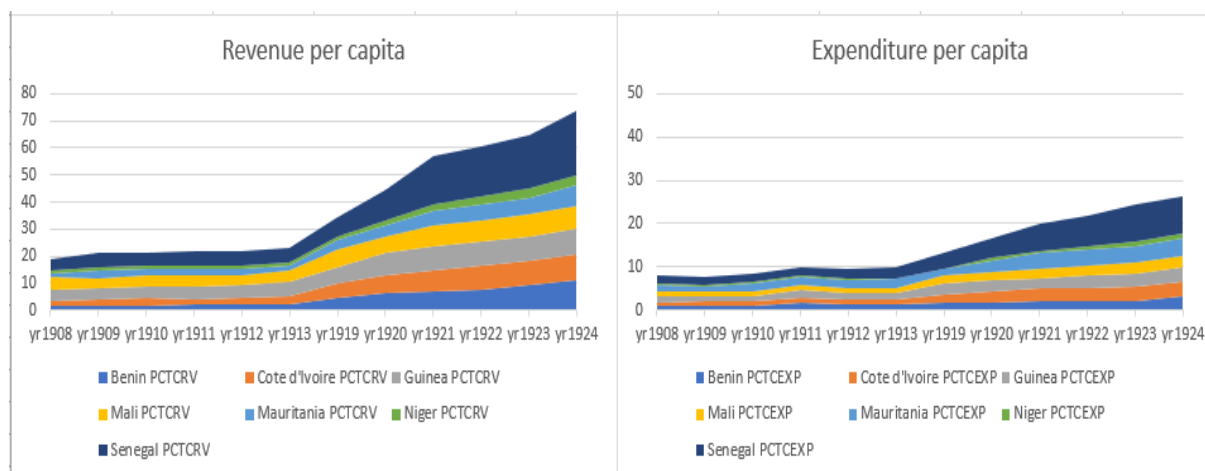
Figure 51 illustrates the distribution of the proportion of average per capita expenditure on colonial education, health, infrastructure and law enforcement relative to gross colonial revenue per capita in each of the colonial possessions of the French and British empires in sub-Saharan Africa from 1907 to 1925. Spending patterns on the provision of public goods differed considerably between the two empires. Some colonies allocated more resources to education, while others allocated a greater proportion of their revenues to law enforcement or other areas. However, the general trend suggests that spending increased on law enforcement, which served as a tool of oppression for colonial rulers until decolonization, and on investments in infrastructure such as roads and bridges, that facilitated the extraction of valuable resources for emerging industries in Europe.

In contrast, the figure shows that spending on education, health and legal measures was minimal. These factors help to explain the weak postcolonial institutions, as there is a link between education, justice and institutions. They also shed light on why the indigenous population did not readily embrace colonial rule. This lack of support ultimately led to the poor colonial and postcolonial performance of these colonies. I share the view that if the colonizers had invested more in the development of their colonies, there would have been less resistance to imperial rule, which could have led to different outcomes.

I argue that it is an oversimplification to attribute the failure of colonial state in Africa solely to the fact that the indigenous population did not want to accept foreign rule. Did the colonizers do enough to win the support of the majority of the natives? The data, and the literature indicate the opposite. Seizing resources without concern for the welfare of the population usually leads to resistance, as is evident in the case of imperial rule and the slave trade in retrospect. These historical events did not contribute to the development and well-being of the indigenous population and ultimately undermined the European legacy on the continent.

However, another facet of this descriptive analysis is to examine the best performing colonies within the different colonial groups in terms of revenue generation and allocation of resources for development in the French and British empires in sub-Saharan Africa. In creating the following chart, I have focused on the period from 1907 to 1924 and have not extended it to 1925, as I do not have data for Senegal for that year. Including 1925 would have given a misleading picture of the evolution of Senegalese revenues, as it would have falsely indicated a complete decline to zero, which would not correctly reflect the evolution of revenues in the colony of Senegal as a whole. It is difficult to imagine that there was no administrative budget in the colony of Senegal in 1925.

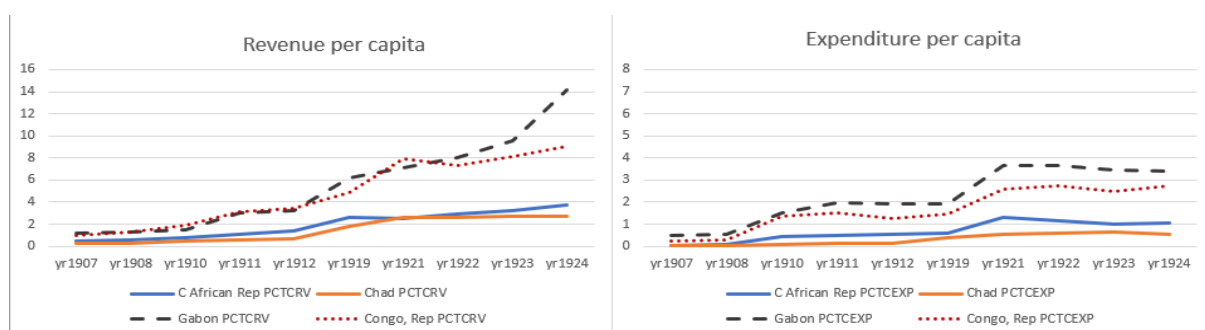
Figure 52: Comparative development of average per capita gross colonial revenues and expenditure in the colonies of French West Africa.



Source: author's work using data from the French "compte des recettes et revenus" in the digital library (Gallica) and Statements of revenues and expenditures in the British colonial Bluebooks.

As Figure 52 shows, the colony of Senegal is the best performing of all the colonies in the AOF federal cluster in terms of both revenue and expenditure on public goods. This observation is in line with the findings of Huillery (2009). She argues that the colonial administration spent more on development in some Senegalese districts than in others, reflecting post-colonial inequality and patterns of investment in public goods in education, health, and infrastructure. She argues that this deliberate differentiation of French development efforts for certain districts and not others may be rooted in "geographical factors, precolonial factors and characteristics of colonial conquest" of the colony – a dynamic I illustrate in the chart below.

Figure 53: Comparative development of average per capita gross colonial revenues and expenditure in the colonies of French Equatorial Africa.



Source: author's work using data from the French "compte des recettes et revenus" in the digital library (Gallica) and Statements of revenues and expenditures in the British colonial Bluebooks.

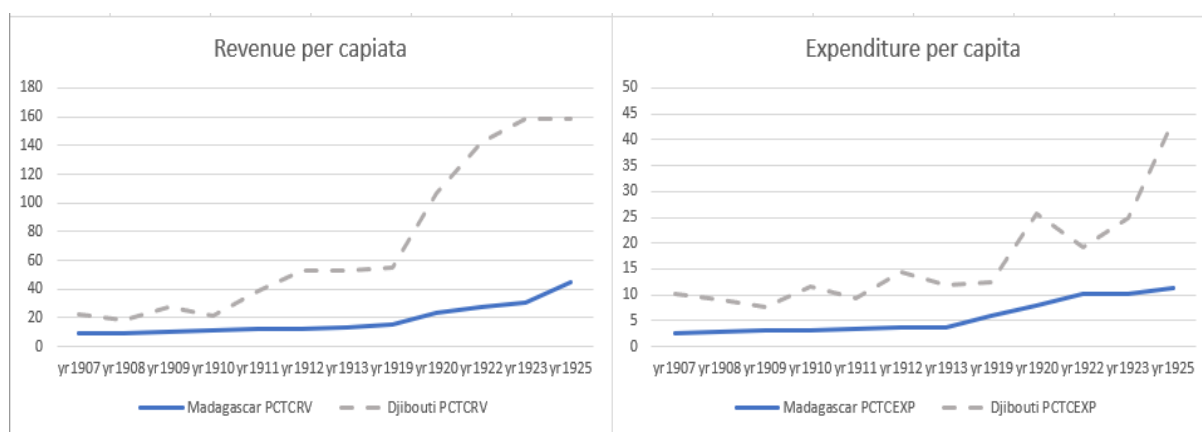
To identify the most successful colony in French Equatorial Africa, I use a similar analytical approach to that described Figure 52. Using the graph above, I analyze the financial data of four

colonies within the federation of Equatorial Africa, as shown in the Figure 53. The graph shows the evolution of revenues and expenditures for the territories in question, and illustrates that Gabon has the highest value for both revenues and development expenditures in the second French colonial federation. It is worth noting that the Congo follows closely behind Gabon in terms of fiscal development in the French Equatorial Federation.

One discernible trend in the fiscal dynamics of the AEF is the pronounced gap between the Federation's top duo – Gabon and Congo – and its two remaining colonies, Chad, and the Central African Republic. These landlocked countries are less productive than their counterparts. The main factor explaining this fiscal disparity may lie in the particular factor endowments of Chad and the Central African Republic. The abundance of land and low population density make the development of a tax infrastructure in these areas a costly endeavor, which may ultimately outweigh the benefits.

However, the non-federated colonies, namely Madagascar and Djibouti, seem to have fared better than the rest of the clusters in the French Empire. I have excluded the colony of Comoros from this particular analysis because there is no data available in my dataset for the Comoros colony from 1920 to 1925. I have also excluded 1921 and 1924 for the same reason that I excluded 1925 in the graph of AOF colonies above. The absence of a data point in these years would have resulted in the same erroneous decline in Madagascar's expenditure trends. As the graph below shows, the trends in revenue extraction and expenditure on public goods in the non-federated colonies far exceed those in the federated colonies and the trusteeship territories of the French Empire.

Figure 54: Comparative development of average per capita gross colonial revenues and expenditure in the non-federated colonies of French Empire.



Source: author's work using data from the French "compte des recettes et revenus" in the digital library (Gallica) and Statements of revenues and expenditures in the British colonial Bluebooks.

In short, this descriptive analysis examined colonial data in sub-Saharan Africa, focusing on the fiscal dynamics of the British and French colonial empires. The main finding of the analysis is that there are significant differences in revenue generation and investment in development across colonies and at the group level in SSA. The analysis sheds light on the fiscal strategies and priorities of colonial administrations and their impact on economic and institutional development and the propagation of resistance to colonial rule.

The analysis concludes that (a) there were significant differences in revenue patterns within and between the two empires of France and Britain; (b) the structure of the French colonial empire was diverse and showed strong heterogeneity among its colonial formations. The non-federated colonies outperformed the federated colonies in terms of fiscal performance, as did the colonies entrusted to France after the end of the German Empire; (c) the average performance of the British colonies in terms of revenue generation and development spending was higher than that of the French as a whole, despite differences between individual colonies in both empires,

The analysis also found that (d) both imperial enterprises took a minimalist approach to investment in key areas such as health, education, infrastructure development and general administration compared to the taxes extracted from the local population; (e) both powers prioritised spending on law enforcement (police and other security forces) that enabled the occupation of their territories. Both invested in tailor-made physical infrastructure such as roads, bridges, and railways to facilitate the movement of raw materials destined for European industry from extraction places to the seaports (harbours). These investments also facilitated the deployment of repressive security forces in their empires.

Furthermore, the descriptive analysis suggests that: (f) lack of investment in indigenous development and welfare can explain resistance to colonial rule and the lingering effects of postcolonial institutional malaise; (g) some colonies such as Senegal, Djibouti and Madagascar excelled in raising revenue and spending on key development infrastructure; (h) the factors influencing differential fiscal performance are to some extent related to geographic location, precolonial history and the nature of the conquest of the territory, which is consistent with Huillery (2009). However, I will now turn to the empirical part of the thesis, in which I will run an econometric regression to substantiate the historical institutional link with current performance.

11. Empirical analysis and Econometric methodology

11.1 Variables and data sources

11.1.1 Dependent variables

I choose average combined institutional quality (ACOMBINST), with a particular focus on the rule of law (ROL), as the dependent variable to measure the extent to which the colonial experience in SSA influences contemporary institutions. The rationale for this choice is that institutions, especially the rule of law, are the foundation for the flourishing of an impartial legal system, which is of paramount importance for a country's overall development (World Bank, 2012; see also Section 3). Law can be an instrument of good or of tyranny, depending on how it is applied. John F. Kennedy, the late US President, argued that "law is the strongest link between man and freedom" (cited in Frederick, 2020). Waldron (2011) describes it as the lifeblood of a democratic society, without which the "Imperium Legum" – "the empire of laws, not of men" – would erode (Silkenat et al., 2014; Sellers, 2016).

According to the World Bank report¹⁷, the rule of law "captures perceptions of the extent to which agents trust and abide by the rules of society, in particular the quality of contract enforcement, property rights, police and courts, and the likelihood of crime and violence". The data come from a variety of sources, both representative and non-representative. Representative sources include the Heritage Foundation Index of Economic Freedom, the Institutional Profiles Database, the Political Risk Services, International Country Risk Guide, etc. Non-representative sources include the Bertelsmann Transformation Index, the World Bank's Country Policy, and Institutional Assessments, the Reporters Without Borders Press Freedom Index, etc.

The Rule of Law Index is an important benchmark for a rule-based society and is used by many non-governmental organisations to assess the quality of institutions and the protection of property rights. The index thus provides information on the state of the rule of law in a country and the strength of such a system. The rule of law index ranges from -2.5 for the lowest/worst score to +2.5 for the highest/best score. The authors use a statistical method known as the unobserved components model (UCM), developed by Goldberger (1972), to aggregate their variables.

There is no generally accepted definition of the term "rule of law". However, this is not due to a lack of attempts, but to differing academic interpretations (Bingham, 2007) and political disputes (Bellamy, 2017; Chesterman, 2008). Many have argued that the term is overused, to the extent that some claim it has become another tool of self-congratulation adorning the

¹⁷ <https://www.worldbank.org/content/dam/sites/govindicators/doc/rl.pdf>

utterances of Western politicians (Shklar, 1987). Formalities aside, it means that the government is bound in all its actions by rules that have been laid down and announced in advance. Rules that make it possible to predict with some degree of certainty how the authority will use its coercive powers and to plan its own affairs on the basis of this knowledge.

Furthermore, critics denounce the tendency of F.A. Hayek's definition of the rule of law. Raz (1977/2017), for example, argues that Hayek limits the rule of law to good governance. According to the critics, "all laws should be prospective, open and clear; laws should be stable; the enactment of laws should be guided by open, clear and general rules; the independence of the judiciary must be guaranteed; natural justice must be observed; the courts must have the power to review some principles; the courts should be accessible; and the discretion of the authorities responsible for fighting crime should not be allowed to pervert the law." (Silkenat et al., 2014: 96; Waldron, 2016).

The report of the International Congress of Jurists on ROL, held in New Delhi in 1959, also states that "The task of the legislature in a free society governed by the rule of law is to create and maintain the conditions which preserve the dignity of man as an individual. This dignity requires not only the recognition of his civil and political rights, but also the creation of the social, economic, educational and cultural conditions essential to the full development of his personality" (p.211). Similarly, the United Nations defines the ROL as "a principle of governance in which all persons, institutions and entities, public and private, including the State itself, are accountable to laws that are publicly promulgated, equally enforced, and independently adjudicated, and which are consistent with international human rights norms and standards."¹⁸.

I developed my institutional variable using the World Bank's Worldwide Governance Indicators (WGI) which cover the period 1996-2019 for 200 countries. The WGI assess six aspects of governance: voice, accountability, political stability and absence of violence/terrorism, government effectiveness, regulatory quality, rule of law and control of corruption. However, for this study, I combined all WGI indicators into a single indicator and then assessed its relationship with the colonial variables. I also examined the relationship between each individual WGI variable and the aggregated colonial variables. The WGI indicators were developed by Daniel Kaufmann of the Brookings Institutions and Aart Kraay of the World Bank.

¹⁸ <https://monusco.unmissions.org/en/what-rule-law>

11.1.2 Independent variables

To shed light on the influence of SSA's colonial history on contemporary institutional quality, I examine a number of variables that capture the fiscal performance of the colonial states. These variables include colonial revenues, public works expenditures, education expenditures, and colonial justice system expenditures, which together help predict the state of institutional quality in SSA today. The colonial revenue variable is calculated for each colony by taking the sum of direct and indirect taxes, including all non-tax revenues. Similarly, the expenditure variables were calculated by adding up all expenditures for each item. Further details on the aggregation methodology can be found in Part II of the thesis in the previous sections. However, the reason for selecting these explanatory variables is based on the idea that the provision of public goods strengthens state capacity and thus institutional development. This is in line with the arguments of prominent social scientists such as Acemoglu and colleagues, Douglas North, Paul Collier, Jeffrey Sachs and others.

The determinant of long-run development is a topic that has given rise to a wealth of academic writings and policy debates. It evokes a variety of views ranging from the geographically contingent explanation to the path dependence theory to the institutionally contingent argument, as mentioned in the previous sections (Lewis, 1978/2009; Sachs, 2001; Diamond, 1997, Myrdal, 1968; Pomeranz, 2000). Following Acemoglu et al. (2002), the geographical explanation can be divided into two arguments, as I noted in Section 3. The first explanation relies on a “time-invariant hypothesis” of geography and the second on a “time-variant” description of the effects of geography on economic development.

The first argument, which views geography as a “first order” determinant of prosperity, seems to suggest that geographic areas that were favorable for economic productivity in 1500 should have similar outcomes today. But unfortunately, as Acemoglu points out, the evidence argues against such a time-invariant notion. The second argument, however, suggests the opposite, as expressed through the “temperate drift hypothesis”. The theory states that agricultural technologies in formerly less favorable regions had a reverse effect. According to Acemoglu, this reversal underscores the role of institutions, an argument that has played the main role in explaining economic development since the seminal study by Douglas North (North, 1990; Locke, 1980; Smith, 1778/1977; Hayek, 1978/2021).

Institutional theory has been used by many scholars to explain the role of colonial policies in the current development outcomes of former colonies in SSA. Among the most influential are the works of Darren Acemoglu, Simon Johnson and James Robinson. They argue that the

economic malaise of former colonial territories south of the Sahel is due to the lack of property rights institutions as a result of the colonial experience. Acemoglu and his colleagues claim that Europeans introduced extractive institutions in their former possessions because of the low presence of European settlers (Acemoglu et al, 2002; see also Acemoglu et al, 2001).

I follow a similar theoretical and empirical approach as the proponents of the institutional argument to assess the postcolonial institutional outcomes of the colonial experience in SSA in terms of institutional quality, but with a particular focus on the rule of law in the former colonies in sub-Saharan Africa. To this end, I use historical revenue and expenditure variables from 30 former French and British colonies in SSA to assess institutional performance in the hope of contributing to this debate. The variable I am more interested in is the colonial revenue as it serves to finance the colonial administration and thus the type of institutions the architects of the project were willing to support.

In light of the above, I draw on several scholarly works, notably Acemoglu and his colleagues' reversal and settler thesis, Huillery (2009), Banerjee & Iyer (2005), Frankema & Waijenburg's (2014) and Gardener's (2012) studies on colonial taxation. However, as far as I am aware, this work is unique, although it mirrors earlier studies in that it empirically examines the impact of historical events on current performance in the unique context of SSA and thus differs from them.

11.1.3 Control variables

Based on various empirical studies, I have identified specific control variables to assess institutional quality, namely gross domestic product (GDP), trade openness and average schooling. Given the central role that institutions and governance play in overall economic growth and development, the question arises as to which factors mainly influence or drive institutional quality. Although numerous studies have examined the reasons for differences in institutional quality between countries, a definitive consensus remains elusive (Alonso et al, 2020; Alonso & Garcimartín, 2013; Straub, 2000; Islam & Montenegro, 2002).

Nevertheless, factors such as per capita income, a country's level of education and its openness to international trade and business are often cited. In an in-depth analysis of the determinants of institutional quality, Alonso, Garcimartín and Kvedaras found that per capita income, openness to trade, education level, tax policy and income distribution have a stronger influence on institutional quality than colonial history and geography. In addition, the earlier study by Alonso and Garcimartín found that income distribution, tax policy and development conditions

influence the robustness of institutions. According to the authors, a higher level of development contributes to the strength of institutions.

Conversely, most studies recognize that better institutions contribute to higher economic growth, more robust financial markets, higher productivity, better education, better healthcare, lower poverty and inequality, better income distribution, and higher domestic investment (Kaufmann et al, 1999; La Porta et al, 1998; Hall & Jones, 1999; Mauro, 1995; Wei, 1997). Several studies also find a correlation between strong institutions and lower corruption, with a highly corrupt environment leading to lower public spending on education (Mauro, 1998). Furthermore, Henisz (2004) points out that political institutions play a crucial role in predicting growth differentials between countries.

Lehne et al. (2014) examine the factors that affect the quality of economic institutions and conclude that trade openness, investment and financial flows better explain the quality of economic institutions. They also point to the mixed effect of resource wealth on economic institutions. Similarly, Islam and Montenegro (2002) find that trade openness has a positive effect on the quality of institutions, but increased trade in natural resources has a negative effect on institutions, which is consistent with the findings of Colliers & Hoeffler (1998).

11.2 Empirical Methodology

11.2.1 Regression Analysis

I use a multivariate method of analysis to estimate the relationship between my dependent variable, average combined institutional quality (ACOMBINST), and my independent variables. For reasons of data availability for my econometric regression, I created a panel of data and calculated the average value of the data. Panel analysis allows for the collection of cross-sectional characteristics, which provide information on differences between former colonial areas, and time series characteristics, which provide information on differences within former colonies over time. This method enables collinearity problems to be avoided, efficient econometric estimates to be produced and heterogeneity effects to be taken into account.

However, due to the problem of data availability, I could not perform a panel regression to measure the time effect. The data for the dependent variable ranges from 1960 to 2018 and that for the independent variable from the early 1900s. Since I want to examine the effects of history on the present, I chose to take the average value for each variable to solve the problem of data availability. In addition, I provide two categories of explanatory variables: one that provides

information on colonial income extraction and the other on the pattern of colonial expenditure on public goods.

The revenue side comprises the total revenue of the colonies (direct, and indirect, and others), and the expenditure side consists of the expenditure on justice, education, health and public works. Similarly, I have calculated the dependent variable and labelled it as the combined institutional quality. I pay particular attention to the institution of rule of law, which measures the ability of citizens to cooperate with duly enacted laws, especially in terms of the quality of contract enforcement, property rights, law enforcement agencies, and courts. It also captures the perception and confidence of stakeholders in the likelihood of crime and violence occurring. Furthermore, to reduce the effects of skewness in the distribution of my data, I took the logarithmized value of each explanatory variable.

However, to mitigate the effects of the many missing values, I calculated the average value of each variable and then calculated the per capita values of each aggregated average value by dividing the aggregated average values by the estimated population data from (Frankema & Jerven, 2014). The reason for using Frankema and Jarven's population data is the inaccuracy of colonial population estimates. Records of population estimates during the colonial period were not fully available for all countries or were missing for some years in the period covered by my study. Given these concerns, I consider it is to be appropriate to rely on population estimates from those who have studied the subject academically.

Concrete estimates of the African population from the precolonial period have always been controversial due to the lack of data and the difficulty in determining the exact number of indigenous populations during the colonial period. Europeans have always had a distorted view of Africa based on reports from precolonial travelers who portrayed Africa as an underpopulated continent plagued by war and enslavement. Against this background, Europeans assumed that Africa was underpopulated (Ittman, 2022). According to demographic historians, colonial administrators tended to consistently underestimate population numbers during the colonial period, assuming a low growth rate (Manning, 2010). Given these concerns, Manning relied on mid-20th century estimates of Africa's total population to retrospectively estimate the total population at the regional and continental levels from 1950 to 1850.

Manning applies a methodology that involves a comparative analysis of Africa's total population and demographic changes over time. He begins this analysis with population estimates from 1950 and 1960 as basic reference points. Manning meticulously compiles data from a variety of sources, including population statistics organized by gender, age, group (race),

and status (free or slave), while also considering migration patterns. His comprehensive dataset allows for a nuanced examination of population dynamics.

Manning's approach is to draw parallels between the population growth rates of different regions, assuming that the patterns of births and deaths in Africa are similar to those in many other parts of the world. To estimate Africa's population growth rate, Manning uses India's demographic development between 1871 and 1951, which he considers a suitable proxy. However, Frankema and Jarven extend Manning's basic work by making several adjustments to the 1950 reference value used by Manning. This led to the creation of a refined dataset for the African population, which is described in detail in their paper (for more information see Frankema & Jarven, 2014).

In addition, in my analysis I examine a number of control factors, namely GDP per capita, trade openness and mean years of schooling, to capture the confounding effect that such a variable may have on the dependent and independent variables. However, due to the availability of data for some countries and in order to better specify the model, I only use the GDP per capita variable in my regression. Confounding variables can lead to a spurious relationship between the predictor and the response variable. Confounding effects are nothing new in empirical research. They bring with them the problem of causality.

In epidemiologic and demographic studies, this refers to a variable that is associated with both the explanatory factor and the expected outcome (Wunsch, 2007; see also Jenicek & Cléroutx 1982; Elwood 1988). By controlling for extraneous factors, I can determine whether current institutional quality and colonial variables (revenue and expenditure) are not spuriously influenced by other factors that cause an association rather than a causal relationship.

With the above in mind, I run multivariate linear regression using Ordinary Least Square (OLS) method where $X_{it1} + \dots + X_{itn}$ represent the regressors of countries (i) over time (t) for $i=1, \dots, N$ and $(t)=1, \dots, T$, where Y_{it} is the regressand for countries (i) over time (t) for $i=1, \dots, N$ and $(t)=1$, and U_{it} is an error term. Given the latter, the estimating equation Y_{it} can be formulated as follows:

$$Y_{it} = \alpha + \beta X_{it1} + \beta X_{it2} + \beta X_{it3} + \beta X_{it4} + \beta X_{it5} + \beta X_{it6} + \beta X_{it7} + \dots + \beta N_{itn}.$$

I argue that current state of institutional quality especially the rule of law in SSA's former colonies is a function of the colonial experience as reflected in patterns of tax collection and spending practices and a control factor. However, considering the average value of each aggregated variable, the above specification can be written as follows:

Average Combined institution (AVCOMBINST) = Average total Colonial Revenue (AVTCRV) + Average Total Colonial Expenditure (AVTCEXP) + Control Factors,

where: **ATCRV**= Average Colonial Direct tax (AVDRCTTX) + Average Colonial Indirect tax (AVINDTX) + Average Other Revenues (AVOTHTX),

and: **AVTCEXP**= Average Colonial Justice Expenditure (AVCJEXP) + Colonial Education Expenditure (AVCEEXP) + Colonial Public Works Expenditure (AVCPWEXP). Furthermore, I describe the control factor as (GDP, TRADE OPENNESS, MEAN YEAR OF SCHOOLING). Therefore, the model can be rewritten as follows: **AVCOMBINST**= AVDRCTTX + AVINDTX + AVOTHTX + AVCJEXP + AVCEEXP + AVCPWEXP + GDP + TRADEOPN + MYS

However, in order to compare the variations between colonies considering the differences in their population size, I use the per capita value of each aggregated variable. In this way, I can measure the burden of tax payments per native person in the colonies relative to the supply of colonial public goods in each year. The per capita value can be used to determine how much a native pays in terms of tax relative to the public good he or she received in the form of education, legal protection, healthcare, security, etc. In this background, I can formulate the model as follows:

AVCOMBINST= AVPCDRCTTX + AVPCINDTX + AVPCOTHTX + AVPCJEXP + AVPCCEEXP + AVPCPWEXP + GDP + TRADEOPN + MYS.

Considering the possible skewness of the probability distribution in my dataset, I use the logarithmic transformation. It is a suitable method to transform a highly skewed variable into a normalized data. The logarithmic transformation reduces the probability of errors with negative skewness when modeling variables that have nonlinear relationships. To obtain a better predictive model, it is as important to produce the lowest possible error as it is to overfit the model.

Overfitting in a linear regression occurs when the number of variables (predictors) in the model is so large than necessary compared to the number of observations thus violating the parsimony principle (Hawkins, 2004). Therefore, the generalization of the dataset will not lead to a valid prediction. Using the logarithm of one or more variables improves the fit of the model by transforming the distribution of features into a more normal bell curve. This representation can be written as follows:

AVCOMBINST=LOGAVPCDRCTTX+LOGAVPCINDTX+LOGAVPCOTHTX+LOGAVPCJEXP+LOGAVPCCEEXP+LOGAVPCPWEXP+LOGAVCPI+LOGGDP+LOGTRADEOPN+LOGMYS

However, considering that the total revenue of the colony is made up of direct, indirect and other revenues, the model can be reformulated as follows:

$$\mathbf{AVCOMBINST} = \text{LOGAVTCRV} + \text{LOGAVPCJEXP} + \text{LOGAVPCEEXP} + \text{LOGAVPCPWEXP} + \text{LOGGDP} + \text{LOGTRADEOPN} + \text{LOGMYS}.$$

Furthermore, if I consider the specification issue and remove unnecessary variables from my regression equation, the model can be written as follows: $\mathbf{AVCOMBINST} = \text{LOGAVTCRV} + \text{LOGAVPCJEXP} + \text{LOGAVPCPWEXP} + \text{LOGAVPCEEXP} + \text{LOGGDP}$.

Given that my multivariate regression is of the form $Y_{it} = \alpha + \beta_{it1} + \beta X_{it2} + \beta X_{it3} + \beta X_{it4} + \beta X_{it5} + \beta X_{it6} + \beta X_{it7} \dots \dots \dots \beta N_{itn}$, the model can take the following form:

$$\mathbf{AVCOMBINST} = \alpha + \beta_1 \text{LOGAVTCRV} + \beta_2 \text{LOGAVPCJEXP} + \beta_3 \text{LOGAVPCPWEXP} + \beta_4 \text{LOGAVPCEEXP} + \beta_5 \text{LOGGDP}$$

a) Data and Descriptive Statistics

Table 7. Descriptive summary

Variable	Obs	Mean	Std. dev.	Min	Max
combinst5	30	-3.432944	2.986248	-9.491962	4.313932
logavpctcrv	30	.9001534	.5543733	.0189378	1.922648
logavpcjexp	30	-1.267792	1.082607	-3.326914	.5162619
logavpceexp	30	-.7090876	.7492185	-2.056296	1.150382
logavpcpwexp	30	-.0063377	.6672708	-1.222052	1.228339
logavgdpcp~5	30	8.11832	.7912809	6.781232	10.08949

Source: Derived from Stata using the author dataset.

As shown in Table 7, I begin the empirical part of this thesis by describing my variables of interest. It begins with the dependent variable – the measure of institutional quality, the independent variable – the logarithm of colonial revenue and the value of colonial expenditure on public goods which consists of justice, healthcare, education, and public work expenditures. The table also contains a control variable measuring per capita gross domestic product, which is a determinant of institutional quality. From left to right, the table shows the abbreviated names of the variables, the number of observations and the value of the central tendency (mean) of each variable in the model. It also contains the measure of the dispersion of each data point

around its value (standard deviations) as well as the minimum and maximum values of each variable.

11.2.2 Ordinary least squares regression

I conduct a multivariate linear regression analysis using the ordinary least squares (OLS) method in which I regress my dependent variable, average combined institutional quality, on average total colonial revenues which my variable of interest, and public goods expenditures – my independent variables, and the control factor – average gross domestic product per capita – over the period from 1900 to 1930 for 30 former colonies. Colonial expenditure on public goods is measured by the logarithmic value of average colonial judicial expenditure, average colonial educational expenditure and average colonial expenditure on public works. The multivariate linear regression thus takes the form of the following equation:

$$y_i = \alpha + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \beta_5 x_5 + \varepsilon_i.$$

Substituting y_i and $x_1 \dots \dots \dots x_5$ for their value, and assuming that the random error is very trivial and therefore negligible, we obtain a regression equation in the form of:

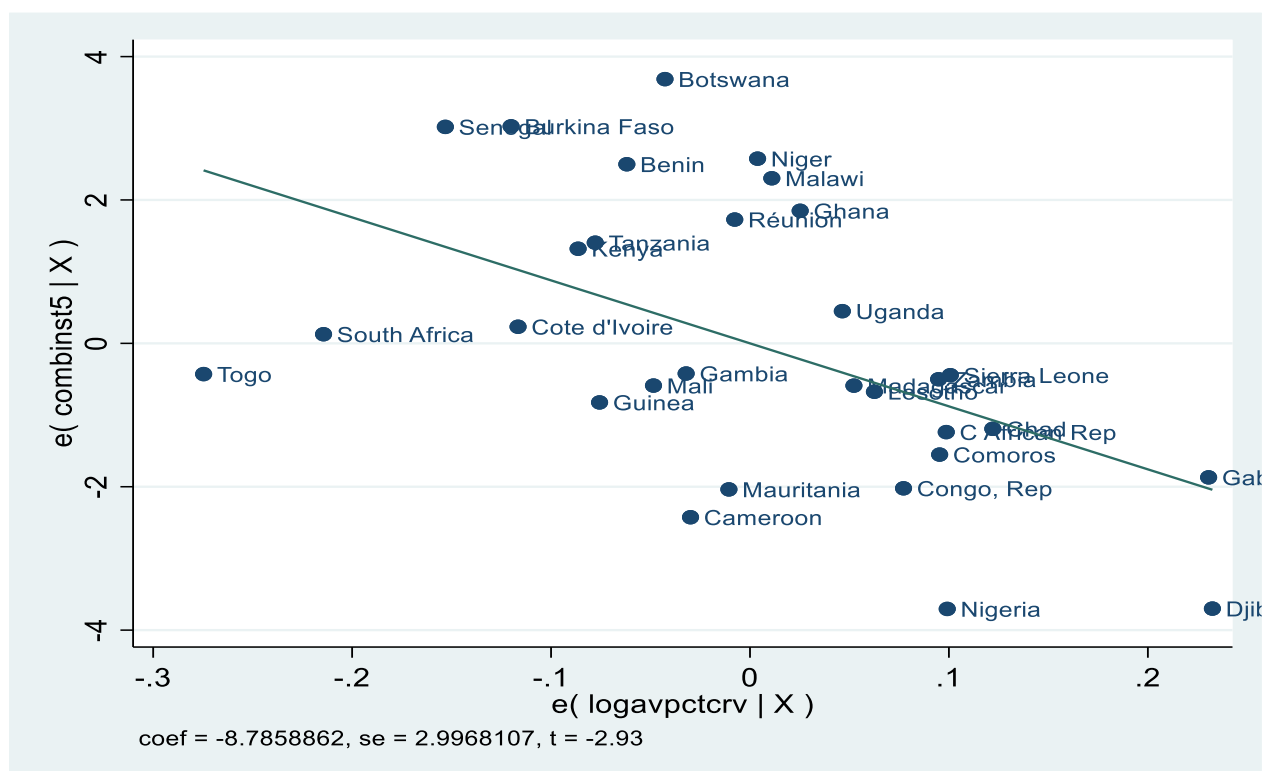
$$\text{AVCOMBINST} = \alpha + \beta_1 \text{LOGAVTCRV} + \beta_2 \text{LOGAVPCJEXP} + \beta_3 \text{LOGAVPCEEXP} + \beta_4 \text{LOGAVPCPWEXP} + \beta_5 \text{LOGAVGDPCTA},$$

Where,

AVCOMBINST (y_i) is the average score of six combined aggregated institutional variables of former colony i , α is the intercept (slope of the equation), and β_1 is the regression coefficient of the average per capita total revenue of the colony, β_2 is the coefficient of average annual judicial expenditures, β_3 the average value of colonial educational expenditures, β_4 is the value of average per capita colonial government expenditure on public works, and β_5 is the control factor, represented by the average per capita GDP. These coefficients explain the influence of colonial fiscal institutions on today's institutions in SSA.

As Figure 55 shows, there is a negative correlation between the quality of current institutions in sub-Saharan Africa – the observed variable measured by the combined world governance indicators - and the independent variable of interest, the average total colonial tax of the former colonies. This implies that the currently observed changes in institutional quality are related to or explained by the colonial history of the former colonies in SSA, as measured by European colonial tax policies, in particular the taxes levied on the indigenous population during this period. The graph below illustrates this connection.

Figure 55: Institution and Colonial Average per Capita Colonial Revenue



Source: Derived from Stata using the author dataset.

11.3 Result of the OLS Regression

The results of the linear OLS regression are shown in Table 8. The result shows that an incremental increase in the value of the variable of interest, total colony revenue, decreases the overall quality of the institutional variable by (-8.717086). This result is statistically significant at 5 percent threshold (0.005), where the p-value of the model is (0.008). It also shows that the colonial expenditure on public goods, namely justice, public works, education, as well as the control factor have no negative impact on the institution. In fact, one unit of expenditure on justice, public works and education improves the quality of institutions by (1.348766), (4.520725) and (2.314118) respectively. Similarly, one unit increase in GDP per capita strengthens the quality of the current institution by (1.95705).

Looking at the respective coefficients of the variables in the regression model, I find that the negative effect of the colonial tax on current institutions is much larger than the positive effect of colonial spending. This result is consistent with the existing literature, which claims that colonial states were minimalist in their spending. That is, colonial administrations extracted more revenue from their subjects than they spent on the development or improving their colonies through the provision of public goods such as education, public works, and the judicial system. Frankema concluded in his study that the colonial states failed to invest in public goods,

arguing that "minimalism prevailed in West Africa" while East Africa tended to exhibit extractive characteristics (Frankema, 2011:1).

Table 8. OLS Regression Analysis

Source	SS	df	MS	Number of obs	=	30
Model	175.077238	5	35.0154475	F(5, 24)	=	10.06
Residual	83.5354411	24	3.48064338	Prob > F	=	0.0000
				R-squared	=	0.6770
				Adj R-squared	=	0.6097
Total	258.612679	29	8.91767858	Root MSE	=	1.8656

combinst5	Coefficient	Std. err.	t	P> t	[95% conf. interval]	
logavpctcrv	-8.785886	2.996811	-2.93	0.007	-14.971	-2.600773
logavpcjexp	1.361856	.6202663	2.20	0.038	.081689	2.642022
logavpcpwexp	4.553835	2.271652	2.00	0.056	-.1346233	9.242293
logavpceexp	2.327517	1.030062	2.26	0.033	.2015743	4.453461
logavgdpcpta5	1.945247	.467967	4.16	0.000	.9794107	2.911083
_cons	-7.910612	4.985504	-1.59	0.126	-18.20019	2.378963

Source: Derived from Stata using the author dataset.

Based on the data, I have come to the same conclusion that the imperial powers, namely Britain and France, raised more revenue than they spent on the provision of public goods. A detailed explanation can be found in Part II – the construction of the database, and in Section 7. This is supported by the regression results of the model, which show a test statistic (-2.91) well above the threshold of (+/- 1.96) and a fairly narrow 95 percent confidence interval (-14.89484 - 2.539328). But how much explanation does my regression model offer? For this purpose, the regression table can be very helpful in providing an explanation.

The regression results show that 67.68 percent of the variation in my model is explained by the colonial tax system, public expenditures, and the control factor, GDP per capita. Moreover, the result of the hypothesis test is (10.05) and its p-value is quite strong (0.0000). Thus, the null hypothesis can be rejected. To confirm the above results, I perform a robustness test of my OLS regression. The result is shown in Table 9. It shows that an increase in colonial tax revenues by one French franc leads to a negative institutional quality score of (-8.717086), which is statistically significant at the 5 percent threshold with a p-value of (0.010) and a t-statistic of (-2.78), which is well above the threshold of (1.96).

Table 9: OLS regression Analysis vce (robust)

Linear regression		Number of obs	=	30
		F(5, 24)	=	12.27
		Prob > F	=	0.0000
		R-squared	=	0.6770
		Root MSE	=	1.8656

combinst5	Coefficient	Robust std. err.	t	P> t	[95% conf. interval]	
logavpctcrv	-8.785886	3.15725	-2.78	0.010	-15.30213	-2.269643
logavpcjexp	1.361856	.651709	2.09	0.047	.0167944	2.706917
logavpcpwexp	4.553835	1.857328	2.45	0.022	.7204995	8.387171
logavpceexp	2.327517	1.013899	2.30	0.031	.2349328	4.420102
logavgdpcpta5	1.945247	.4911259	3.96	0.001	.931613	2.958881
_cons	-7.910612	5.23223	-1.51	0.144	-18.7094	2.88818

Source: Derived from Stata using the author dataset

These findings support my hypothesis that colonial fiscal policy especially the tax revenue, which is representative of colonial institution, led to an institutional dualism that resulted in intense competition between indigenous and European institutions and the erosion of institutional quality, particularly the rule of law, through institutional free-riding (Robert & Mann, 1991). I argue that the introduction of European institutions did not lead to a complete abolition or replacement of African institutions, as was the case in the New World (Wolfe, 2006).

Rather, it led to an unhealthy coexistence (Adotey, 2019) that undermined institutional quality in the colonies as a whole and the rule of law in particular because (a) Africans resisted colonial rule and thus their institutions and (b) these institutions, especially the tax system, were not adapted to local conditions, i.e. the local belief/value system. Africans regarded European foreign rule and the institutional infrastructures that accompanied it as illegitimate.

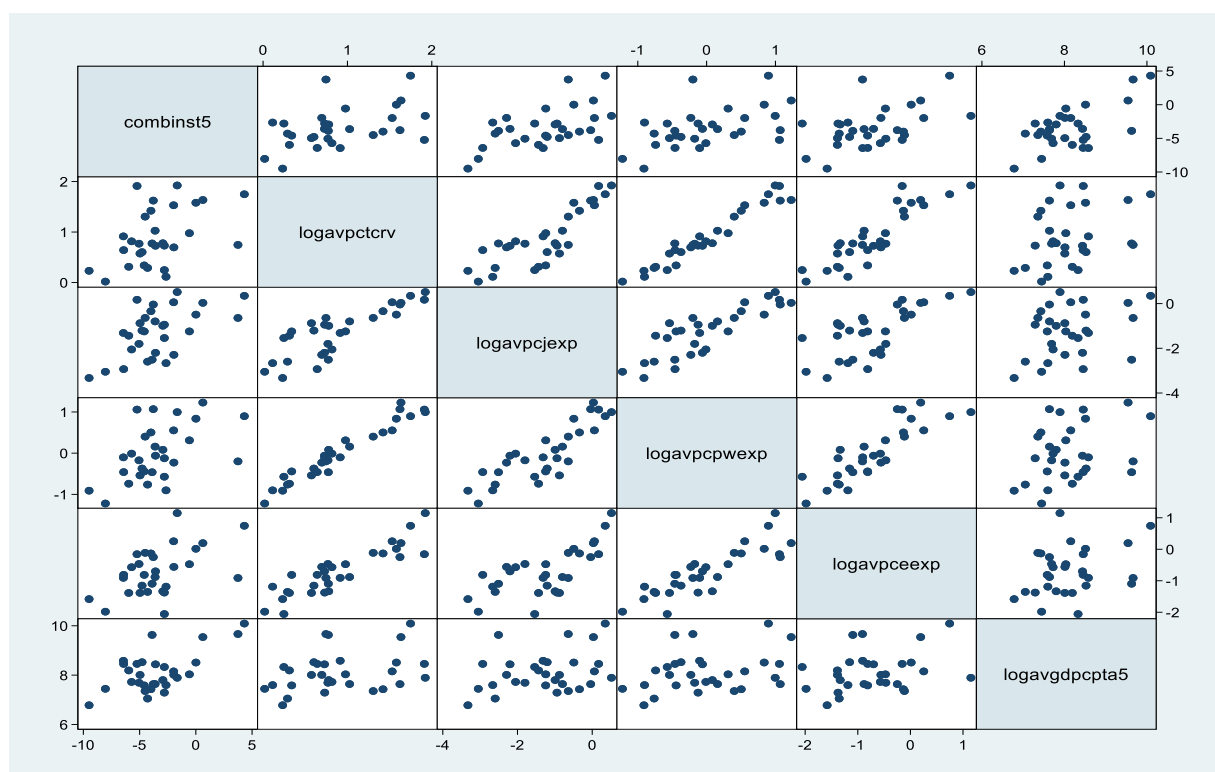
In linear OLS regression analysis, however, a number of assumptions must be met. a) It must be checked whether the relationship between the dependent and the independent variable is linear. b) Has the normality assumption been checked? In other words: Is the error normally distributed? c) The homogeneity of the variance (homoscedasticity), i.e. is the variance of the error constant? d) Are the errors of the observations correlated? This is the assumption of independence of the error term. e) Is the model correctly specified, i.e. not overfitted? Finally,

but not least, multicollinearity should be seriously considered, which in itself is not an assumption of OLS regression, depending on the literature used.

a)- Linearity of the variables

The linearity of a response and a predictor variable can be checked using various graphical methods such as the scatterplot, the avplot and the stem and leaf plot or a series of tests such as the Studentized test, the leverage test, Cook's D and the DFITS test, the DFBETA test. With these measures, I can not only examine the linearity between the dependent and independent variable, but also determine the influence points in my data, the outliers and the observations that could have a leverage effect in the data and influence the regression coefficient. The following diagram shows the relationship between the regressors and the regressed variables and clearly indicates a linear relationship between the dependent and independent variables.

Figure 56: Graph Matrix of the dependent and independent variables



Source: Derived from Stata using the author dataset.

I also run a student test with the command `predict r, rstudent` to investigate the possibility of outliers. So, are there one or more observations that could be influencing the data? The results shown in the table below do not indicate any such concerns. Note that we should be cautious about student residuals that exceed a value of +2 or -2. We should be even more cautious with residuals that exceed a value of +2.5 or -2.5, and we should be more concerned about residuals

that exceed a value of +3 or -3. In this case, the only residual that exceeds the value of +2 is the observation relating to Botswana, which has a value of $2.23 \cong 2$ and technically does not exceed the threshold value of 2 and therefore does not require too much attention.

Table 10: Sort and List country residuals

	country	r		country	r
1.	Togo	-1.978582	16.	Chad	-.0698641
2.	Nigeria	-1.636595	17.	Gabon	.10739
3.	Cameroon	-1.623887	18.	Zambia	.1915568
4.	Mauritania	-1.218756	19.	Sierra Leone	.2497872
5.	South Africa	-1.285482	20.	Kenya	.3418839
6.	Djibouti	-1.075248	21.	Tanzania	.4167382
7.	Guinea	-.8458287	22.	Uganda	.4728448
8.	Congo, Rep	-.88799	23.	Senegal	.9564585
9.	Mali	-.5635231	24.	Réunion	1.096867
10.	Cote d'Ivoire	-.4558322	25.	Benin	1.125277
11.	Gambia	-.4281124	26.	Burkina Faso	1.169351
12.	Comoros	-.4244724	27.	Ghana	1.186396
13.	C African Rep	-.2239493	28.	Malawi	1.431789
14.	Lesotho	-.0837311	29.	Niger	1.534489
15.	Madagascar	-.0733872	30.	Botswana	2.23814

Source: Derived from Stata using the author dataset.

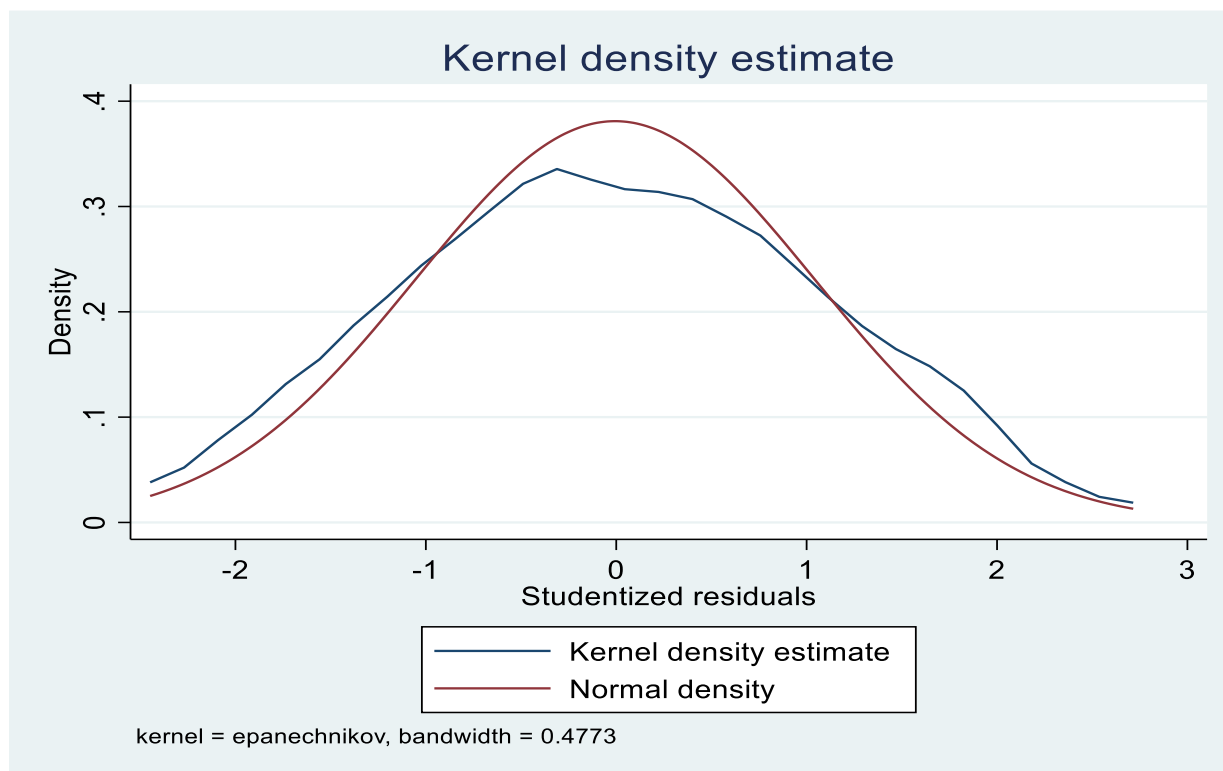
b)- Normality of the error distribution

Having checked the linearity of the variables, I now examine the distribution of the residuals. Technically, normality of the residuals is only required for valid hypothesis tests, i.e. the normality assumption ensures that the p-values for the t-tests and F-tests are valid. Normality is not required to obtain unbiased estimates of the regression coefficients. OLS regression only requires that the residuals (errors) are identically and independently distributed. There is also no assumption or requirement that the predictor variables are normally distributed.

To check this, I perform kernel density estimation using the `kdensity` command in Stata to examine the probability density of the distribution shown in the figure below. The plot shows that the regression model data is fairly normally distributed, with a slight deviation at the top of the plot and at the right tail. However, we can also look at the `pnorm` and `qnorm` to examine the distribution of the residuals. The `pnorm` is a standardized normal probability plot, while the

qnorm plots the quantiles of a variable against the quantiles of the normal distribution. The pnorm is sensitive to non-normality in the middle range of the data, while the qnorm is sensitive near the tail. See the appendix for the pnorm and qnorm plots.

Figure 57: Kernel density Estimation of the distribution of the residual



Source: Derived from Stata using the author dataset.

c)- The homogeneity of the variance (homoscedasticity)

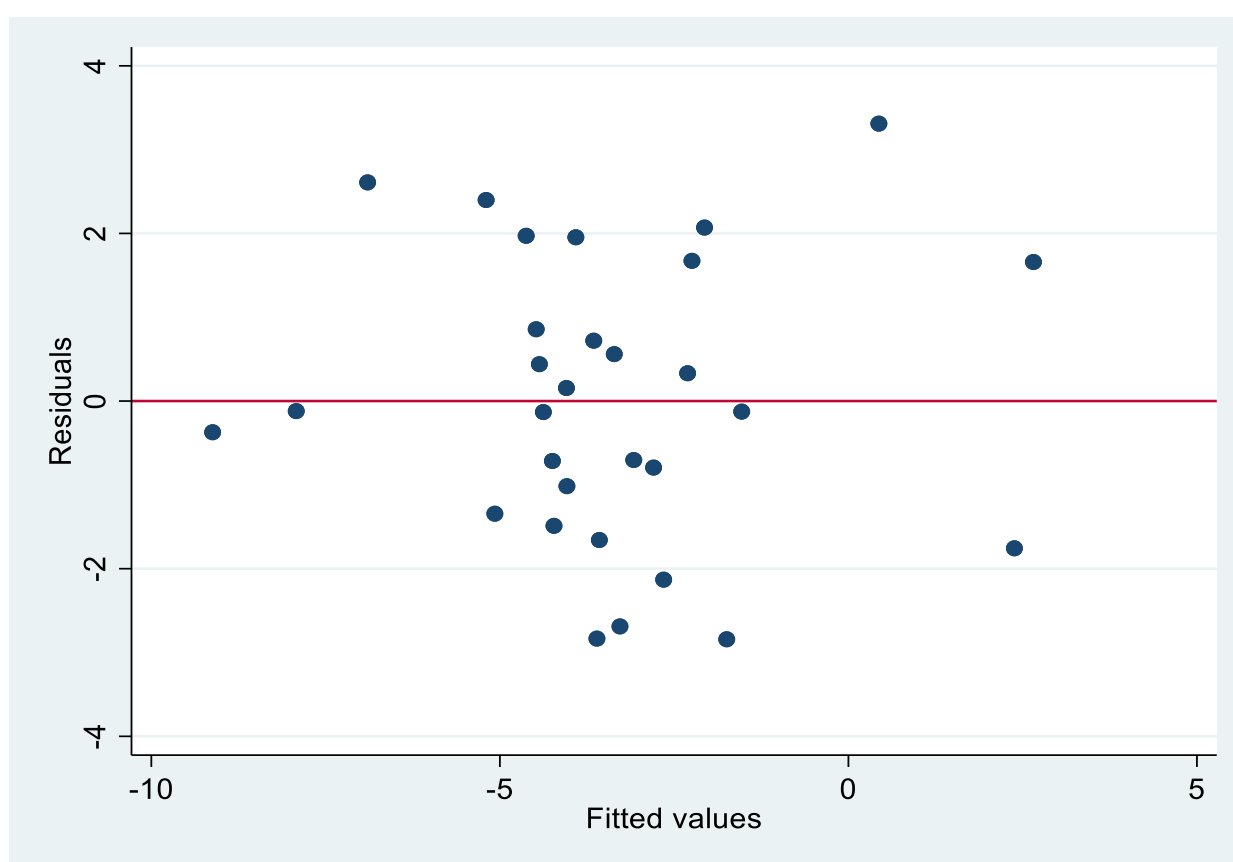
One of the most important aspects of linear regression analysis is the determination of the homogeneity of variance of the residuals, commonly referred to as homoscedasticity of variance. If the model is well defined, a constant variance of the residuals compared to the fitted values should be observed. However, if the variance of the residuals is not constant, the variance of the residuals is called "heteroscedastic". This is the case when the variance of Y (residuals) as a function of X (fitted values), $\text{Var}(Y/X)$, is not constant.

There are graphical methods, such as plotting the residuals against the predicted values with the rvfplot command, to check the homogeneity of the variance. However, the IM test with the estat imtest command (Cameron & Trivedi, 1990) or the Breusch-Pagan/Cook-Weisberg test with the estat hettest command (Breusch & Pagan, 1979) or the White test White (1980) can also be very useful for determining heteroscedasticity. In light of the above, I perform the graphical

method by running the `rvfplot` command with the `yline(0)` option, which gives us a reference line at $y=0$, and then perform the `im-test` and `hettest`.

The result of the plot below shows that there is no heteroscedasticity. As can be seen in Figure 58, there is no heterogeneous pattern in the dispersion of the residuals as the value of the fitted values increases. The pattern of dispersion looks homogeneous. This means that there is no non-constant variance in the response variable as the fitted values increase. The residuals do not "fan out" as X increases. The variance of the residuals follows a homogeneous movement as the fitted values increase.

Figure 58: Residual vs Fitted values Plot – Checking Heteroscedasticity



Source: Derived from Stata using the author dataset.

I also run the Cameron and Trivedi tests separately with the `IM-test` command and then run the combined test with the Halbert-White test with the `estat imtest, white` command. To check the results of my first tests, I run the Breusch-Pagan/Cook-Weisberg test, and the result confirms the result of the graphical test, as shown in the following tables. The p-value of heteroscedasticity for the first test is 0.4958, which is above the threshold of 0.05 (5 percent). The Cameron and Trivedi decomposition of the IM test is also 0.4958, which indicates the homogeneity of the error variance and thus the absence of heteroscedasticity.

Table 11: Cameron & Trivedi test

Cameron & Trivedi's decomposition of IM-test

Source	chi2	df	p
Heteroskedasticity	19.67	20	0.4790
Skewness	1.11	5	0.9536
Kurtosis	2.01	1	0.1558
Total	22.79	26	0.6451

Table 12: Decomposition of IM-test

H0: Homoskedasticity

Ha: Unrestricted heteroskedasticity

chi2(20) = 19.67

Prob > chi2 = 0.4790

Cameron & Trivedi's decomposition of IM-test

Source	chi2	df	p
Heteroskedasticity	19.67	20	0.4790
Skewness	1.11	5	0.9536
Kurtosis	2.01	1	0.1558
Total	22.79	26	0.6451

Source: Both tables are derived from Stata using the author dataset.

To check the above results, I perform the Breusch-Pagan/Cook-Weisberg test for heteroscedasticity. In this test, the null hypothesis is tested against the alternative (Ho vs. Ha). The null hypothesis can be used to determine whether the pattern of error variance is homogeneous, i.e. whether the dispersion of errors is the same, which is referred to as homoscedasticity. The alternative hypothesis, on the other hand, can be used to determine whether the variance of the residuals is "fanned out", i.e. not constant, which is referred to as heteroscedasticity. The result of the test shows that the probability of the chi-square statistic is 0.2851, which is well above the significance level of 0.05 (5 percent).

d)- multicollinearity

I carry out a correlation matrix test and a variance inflation test (VIF) as shown ny Figure13 and 14, and find that there is multicollinearity in my regression model. Multicollinearity occurs when there is a correlation between predictor variables that leads to an inflation of the variance (standard error). In technical terms, this means a "lack of orthogonality" between two or more variables (Alin, 2010:370). Besley (1991) describes this type of relationship as "ill-conditioned" The discussion on multicollinearity is ambiguous and inconclusive. It is said to affect the reliability of the beta coefficient of the regression model due to a high standard error (Wooldridge, 2015:96). However, it is also argued that a high correlation between predictors is neither a necessary nor a sufficient condition to provoke a multicollinearity problem, and that

the t-ratio provides a better explanation for a high standard error than the latter (Maddala & Lahiri, 1992:267).

Table 13: Correlation test of the independent variables

(obs=30)

	logavp~v	log~jexp	log~wexp	log~eexp	logavg~5
logavpctcrv	1.0000				
logavpcjexp	0.8352	1.0000			
logavpcwexp	0.9709	0.8494	1.0000		
logavpceexp	0.8896	0.6973	0.8569	1.0000	
logavgdpcp~5	0.3410	0.3234	0.3246	0.3119	1.0000

Table 14: variance inflation factor

. vif

Variable	VIF	1/VIF
logavpctcrv	23.00	0.043485
logavpcwexp	19.14	0.052236
logavpceexp	4.96	0.201520
logavpcjexp	3.76	0.266173
logavgdpcp~5	1.14	0.875326
Mean VIF	10.40	

Source: Both tables derived from Stata using the author dataset.

The result of the correlation matrix shows a high degree of intercorrelation between the log value of per capita expenditure on public works and a number of independent variables, namely total colonial revenue per capita, judicial expenditure per person and colonial education expenditure per capita. The average intercorrelation shown in Table 13 is above 0.8 and at the extreme 0.9, which is generally considered high. But is this a serious problem? Apart from the variance problem already mentioned, no conclusive answer to this question can be found in the literature.

Multicollinearity does not bias the coefficient, but according to the literature it prevents us from drawing conclusions for individual variables. The OLS coefficients are always unbiased, and the model itself is not affected by multicollinearity despite the variance inflation factor (VIF) shown in Table 14. As we can see, the values are very high according to the accepted rule of thumb. A VIF that is larger than the value given in the literature should be a cause for concern. But what does this mean for the model? Not much. Apart from the standard error, which is not necessarily due to multicollinearity (Maddala & Lahiri, 1992), it has no effect on the model. Looking at the values of the standard errors in Tables 8 and 9, multicollinearity is less of a concern as they are relatively small for most predictor variables.

However, one of the widely used measures to solve multicollinearity problems is to increase the number of observations or to drop a variable from the regression model. I perform the latter by excluding the variable of colonial public works expenditures because it is highly correlated with other predictors, and obtain the same presumptive result as in the previous regression. As shown in Table 15, I notice a change in the regression result and the VIF, but the underlying assumption remains unchanged. Colonial revenue still has a negative effect on the institutional variable, and colonial public goods expenditure is still positively related to institutional quality. It has a beta coefficient of (-3.981148) and a p-value of (0.048), which is statistically significant.

Table 15: OLS regression after dropping one independent variable

Source	SS	df	MS	Number of obs	=	30
Model	161.090041	4	40.2725102	F(4, 25)	=	10.32
Residual	97.522638	25	3.90090552	Prob > F	=	0.0000
				R-squared	=	0.6229
				Adj R-squared	=	0.5626
Total	258.612679	29	8.91767858	Root MSE	=	1.9751

combinst5	Coefficient	Std. err.	t	P> t	[95% conf. interval]	
logavpctcrv	-4.007827	1.923072	-2.08	0.048	-7.968469	-.0471858
logavpcjexp	1.722393	.6284357	2.74	0.011	.4281054	3.01668
logavpceexp	2.310819	1.090441	2.12	0.044	.0650146	4.556624
logavgdpcpta5	1.895628	.4947204	3.83	0.001	.8767323	2.914524
_cons	-11.39239	4.947263	-2.30	0.030	-21.58147	-1.203312

Source: Derived from Stata using the author dataset.

Now that the question of multicollinearity has been clarified, I would like to know which institutional variable has the strongest influence on per capita colonial revenues. To investigate this question, I run a multivariate OLS regression with the mvreg command and use all six variables as dependent variables. The results in Table 16 show that most of the variables are negatively associated with total colonial revenue per capita, with the regression with government effectiveness explaining 60 percent of the variation in my model with an f-statistic of (7.0445) and a probability of f-statistic of (0.0042), the highest explanatory factor in the single regression. All coefficient estimates are statistically significant at the 0.05 percent level with very small standard errors, except for political stability and absence of violence/terrorism, whose p-value (0.710) is above the cut-off level of 5 percent and therefore not statistically significant.

Table 16: OLS regression with individual institutional variables

Equation	Obs	Parms	RMSE	"R-sq"	F	P>F
avcpi5	29	6	.3612512	0.5060	4.712406	0.0041
avgoveff5	29	6	.3256904	0.6049	7.042494	0.0004
avpolstab5	29	6	.5881412	0.3894	2.933875	0.0343
avregqlty5	29	6	.2966034	0.5992	6.876162	0.0005
avrol5	29	6	.3359159	0.5463	5.538779	0.0017
avvoiacc5	29	6	.4713136	0.4213	3.348962	0.0204

	Coefficient	Std. err.	t	P> t	[95% conf. interval]	
avcpi5						
logavpctcrv	-1.352858	.5803481	-2.33	0.029	-2.5534	-.152317
logavpcjexp	.2036705	.1212905	1.68	0.107	-.0472381	.454579
logavpcpwexp	.5507795	.4436288	1.24	0.227	-.3669365	1.468496
logavpceexp	.5273703	.2079503	2.54	0.018	.0971922	.9575483
logavgdpcpta5	.2636649	.0995294	2.65	0.014	.0577728	.4695571
_cons	-.9075936	.9968947	-0.91	0.372	-2.969827	1.15464
avgoveff5						
logavpctcrv	-1.709994	.5232198	-3.27	0.003	-2.792357	-.6276317
logavpcjexp	.0963618	.1093509	0.88	0.387	-.1298478	.3225714
logavpcpwexp	1.238219	.3999589	3.10	0.005	.4108406	2.065596
logavpceexp	.1697089	.1874801	0.91	0.375	-.2181233	.5575411
logavgdpcpta5	.3764606	.0897319	4.20	0.000	.190836	.5620852
_cons	-2.055975	.8987625	-2.29	0.032	-3.915207	-.1967431
avpolstab5						
logavpctcrv	-.3743015	.9448455	-0.40	0.696	-2.328863	1.58026
logavpcjexp	.3225628	.197469	1.63	0.116	-.085933	.7310586
logavpcpwexp	-.0314276	.7222573	-0.04	0.966	-1.525531	1.462675
logavpceexp	.3070856	.3385571	0.91	0.374	-.393273	1.007444
logavgdpcpta5	.3212324	.1620404	1.98	0.060	-.0139738	.6564386
_cons	-2.192985	1.623011	-1.35	0.190	-5.550439	1.16447
avregqlty5						
logavpctcrv	-1.547745	.4764917	-3.25	0.004	-2.533443	-.5620471
logavpcjexp	.1642241	.0995849	1.65	0.113	-.041783	.3702312
logavpcpwexp	1.019079	.364239	2.80	0.010	.2655929	1.772565
logavpceexp	.2179193	.1707365	1.28	0.215	-.1352761	.5711147
logavgdpcpta5	.2888201	.081718	3.53	0.002	.1197734	.4578668
_cons	-1.175852	.8184951	-1.44	0.164	-2.869038	.5173338
avrol5						
logavpctcrv	-1.343554	.5396469	-2.49	0.020	-2.459899	-.2272092
logavpcjexp	.2475673	.1127841	2.20	0.039	.0142556	.4808791
logavpcpwexp	.7490997	.4125161	1.82	0.082	-.1042548	1.602454
logavpceexp	.2590768	.1933663	1.34	0.193	-.1409319	.6590855
logavgdpcpta5	.2603214	.0925491	2.81	0.010	.0688689	.4517739
_cons	-1.006481	.9269803	-1.09	0.289	-2.924086	.9111234
avvoiacc5						
logavpctcrv	-2.254605	.7571627	-2.98	0.007	-3.820915	-.6882944
logavpcjexp	.2044975	.1582441	1.29	0.209	-.1228553	.5318503
logavpcpwexp	1.203763	.5787892	2.08	0.049	.0064467	2.40108
logavpceexp	.6232802	.2713066	2.30	0.031	.0620398	1.184521
logavgdpcpta5	.1843661	.129853	1.42	0.169	-.0842552	.4529874
_cons	.8606441	1.300619	0.66	0.515	-1.829891	3.551179

Source: Derived from Stata using the author dataset.

However, when I run the same regression but exclude the Public Works variable, which is highly correlated with other independent variables, the result shows that only Corruption

Perception and voice accountability appear to be negatively correlated with the Colonial Taxation variable. The corresponding p-values are (0.040) and (0.052). Apart from these two institutional variables, the remaining 4 variables appear to have an insignificant statistical relationship with colonial taxation. Although their beta coefficient indicates a negative relationship, the corresponding p-values are not statistically significant, as Table 17 shows.

Table 17: OLS regression with individual institutional variables after dropping 1 independent variable

Equation	Obs	Parms	RMSE	"R-sq"	F	P>F
avcpi5	29	5	.3653031	0.4729	5.383708	0.0031
avgoveff5	29	5	.3794932	0.4403	4.719088	0.0059
avpolstab5	29	5	.5757816	0.3894	3.825984	0.0152
avregqlty5	29	5	.336157	0.4627	5.167982	0.0038
avrol5	29	5	.3516276	0.4812	5.566204	0.0026
avvoiacc5	29	5	.5029083	0.3125	2.726956	0.0530

	Coefficient	Std. err.	t	P> t	[95% conf. interval]	
avcpi5						
logavpctcrv	-.7861346	.3624021	-2.17	0.040	-1.534096	-.0381734
logavpcjexp	.2492709	.1168922	2.13	0.043	.0080172	.4905245
logavpceexp	.5348771	.2101939	2.54	0.018	.1010582	.9686959
logavgdpcpta5	.2644078	.1006439	2.63	0.015	.056689	.4721266
_cons	-1.361733	.937762	-1.45	0.159	-3.297178	.5737127
avgoveff5						
logavpctcrv	-.4359311	.3764795	-1.16	0.258	-1.212947	.3410844
logavpcjexp	.198877	.1214329	1.64	0.115	-.0517481	.4495021
logavpceexp	.186585	.2183588	0.85	0.401	-.2640854	.6372554
logavgdpcpta5	.3781306	.1045534	3.62	0.001	.1623431	.5939182
_cons	-3.076935	.9741891	-3.16	0.004	-5.087562	-1.066307
avpolstab5						
logavpctcrv	-.4066389	.571209	-0.71	0.483	-1.585556	.7722786
logavpcjexp	.3199608	.1842425	1.74	0.095	-.0602971	.7002187
logavpceexp	.3066573	.3313023	0.93	0.364	-.377117	.9904316
logavgdpcpta5	.32119	.1586324	2.02	0.054	-.0062111	.6485911
_cons	-2.167071	1.478077	-1.47	0.156	-5.217672	.8835289
avregqlty5						
logavpctcrv	-.4991655	.3334874	-1.50	0.147	-1.18745	.1891186
logavpcjexp	.2485962	.1075658	2.31	0.030	.0265912	.4706011
logavpceexp	.2318087	.1934233	1.20	0.242	-.1673974	.6310147
logavgdpcpta5	.2901946	.0926139	3.13	0.005	.0990489	.4813402
_cons	-2.016123	.8629414	-2.34	0.028	-3.797146	-.2350991
avrol5						
logavpctcrv	-.5727688	.3488351	-1.64	0.114	-1.292729	.1471915
logavpcjexp	.3095872	.1125162	2.75	0.011	.0773651	.5418092
logavpceexp	.2692865	.202325	1.33	0.196	-.1482918	.6868648
logavgdpcpta5	.2613317	.0968762	2.70	0.013	.0613891	.4612743
_cons	-1.624143	.9026557	-1.80	0.085	-3.487133	.2388464
avvoiacc5						
logavpctcrv	-1.015994	.4989145	-2.04	0.053	-2.045703	.0137147
logavpcjexp	.30416	.1609241	1.89	0.071	-.0279709	.636291
logavpceexp	.6396867	.2893713	2.21	0.037	.0424536	1.23692
logavgdpcpta5	.1859897	.1385552	1.34	0.192	-.0999742	.4719536
_cons	-.1319059	1.291005	-0.10	0.919	-2.79641	2.532598

Source: Derived from Stata using the author dataset.

Colonization in SSA took various forms. That is, the colonial powers chose different forms of administration to rule their subjects. Although the imperialists switched from one form of

administration to another on many occasions, the British and the French are known for their indirect and direct forms of administration, respectively, and for their strategies of tax collection, with the former favoring indirect taxes while the latter levied more direct taxes, as I have discussed in more detail in Section 4. With this in mind, I examine the regional differences between the British and French colonies by running a regression when the colony is only British or French and excluding the variable *logavpcpwexp*. I also create a dummy variable that equals 1 if the colony is French and 0 if the colony is British, or vice versa. In the first method, Stata reduces the size of the data points, which can reduce the significance of the regression results. In the second method, however, all observations are retained in the regression. The results of the two methods are shown in the following tables.

Table 18 shows the results of the first regression, where I run the Stata command `if the colony!="French"`. This runs a regression only for the British colony in my dataset. As expected, the number of observations is reduced to 12, which of course reduces the statistical significance of the p-value (0.408) of the regression coefficient and affects its standard error (4.291231). Nevertheless, the sign of the regression coefficient (-3.779967) has not changed. It is still negative, suggesting that tax collection during British colonial rule in SSA is poorly related to institutional quality. This relationship is illustrated by Figure 58, where the trend of the relationship is downward, although observations such as Ghana and possibly Nigeria appear a little off the line of best fit.

Table 18: OLS regression if country is only British

Source	SS	df	MS	Number of obs	-	12
Model	53.8126467	4	13.4531617	F(4, 7)	-	4.34
Residual	21.6776957	7	3.09681367	Prob > F	-	0.0443
				R-squared	-	0.7128
				Adj R-squared	-	0.5488
Total	75.4903424	11	6.8627584	Root MSE	-	1.7598

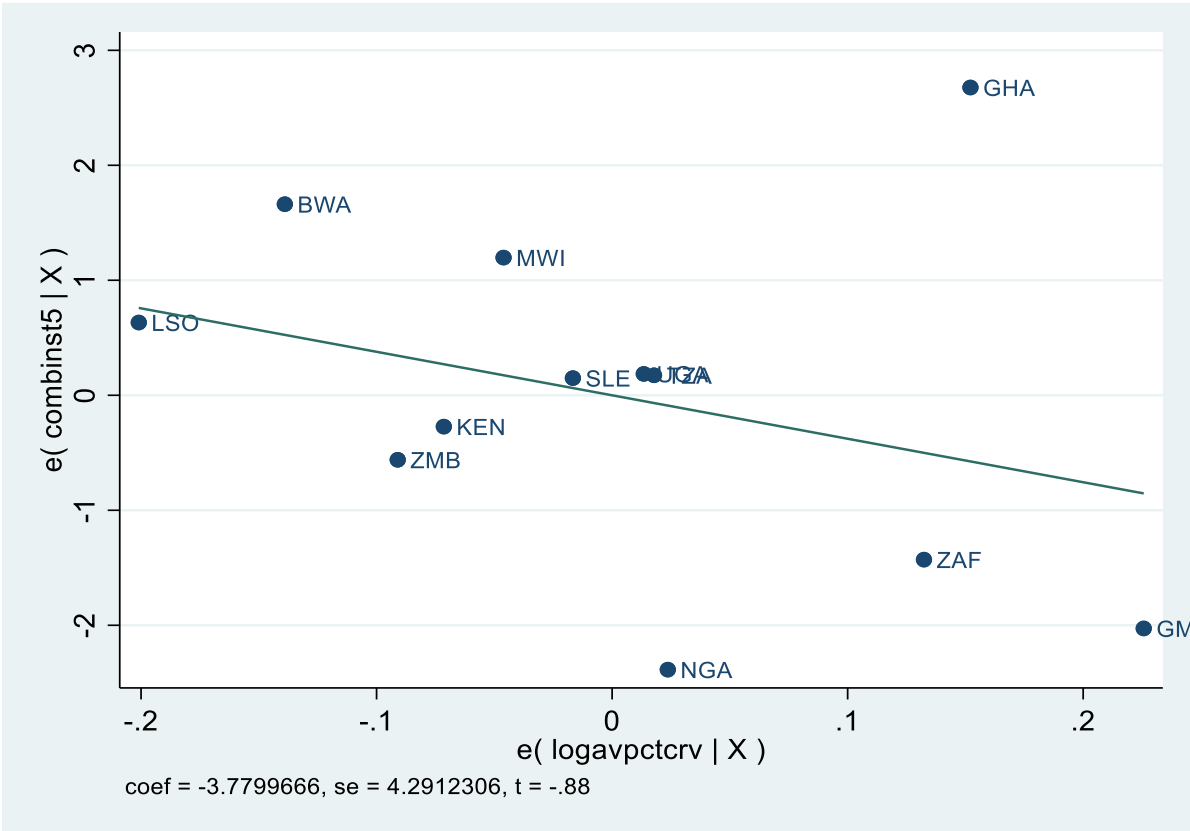
combinst5	Coefficient	Std. err.	t	P> t	[95% conf. interval]	
<i>logavpctcrv</i>	-3.779967	4.291231	-0.88	0.408	-13.92711	6.367181
<i>logavpcjexp</i>	5.497645	2.437118	2.26	0.059	-.2652224	11.26051
<i>logavpceexp</i>	-1.017568	2.693852	-0.38	0.717	-7.387515	5.352379
<i>logavgdpcpta5</i>	2.233399	.746685	2.99	0.020	.4677697	3.999029
_cons	-13.55876	10.33794	-1.31	0.231	-38.0041	10.88658

Source: Derived from Stata using the author dataset.

The result of the regression if countries are only from the British empire is presented in Table 18 and graphically illustrated by Figure 59. Although the regression output indicates a negative

association between colonial revenue and current institutional quality, the statistical significance of the relationship is above the threshold of 5 percent. The coefficient of the regression is (-3.779967) and the P-value is (0.408). This is understandable with a data size of only 12 former colonies.

Figure 59: Institution vs Colonial Revenue if Countries is only British.



Source: Derived from Stata using the author dataset.

The result of the regression if the country is only the former French colonies is shown in Table 19. Although the number of observations has been reduced to 18 countries, the relationship between colonial tax revenue and current institutional quality, as measured by the combined Worldwide Governance Indicators, is still negative. The regression coefficient is quite strong (-4.963905) and statistically significant. The p-value of the beta coefficient is (0.028), which is below the 5 percent level, and the standard error is relatively small at an average of (2.014737). The correlation coefficient, r-squared, of the regression shows that the model for the former French colonies explains 73 percent of the variation in the regression. The graphical representation of this relationship shows a downward trend, as in the previous graphical representation, which means that the colonial tax has a negative impact on the quality of institutions in the former French colonies, as shown in Figure 60.

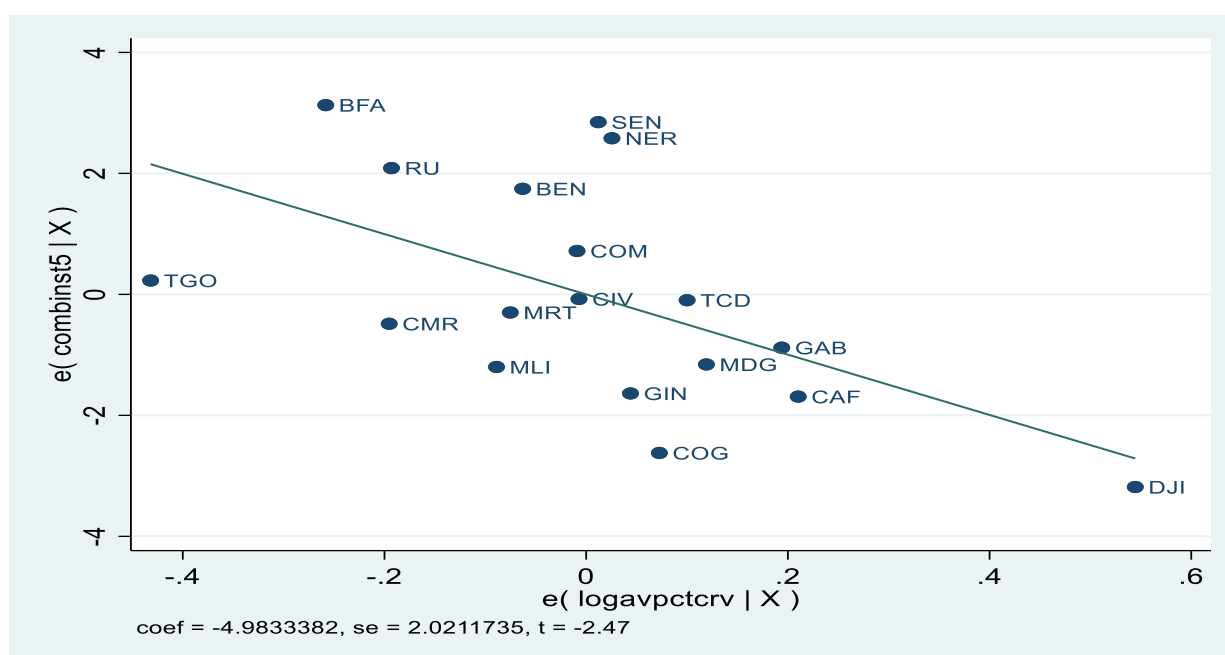
Table 19: OLS regression if country is only French

Source	SS	df	MS	Number of obs	=	18
Model	109.228756	4	27.3071889	F(4, 13)	=	8.83
Residual	40.1905997	13	3.09158459	Prob > F	=	0.0011
				R-squared	=	0.7310
				Adj R-squared	=	0.6483
Total	149.419355	17	8.78937384	Root MSE	=	1.7583

combinst5	Coefficient	Std. err.	t	P> t	[95% conf. interval]	
logavpctcrv	-4.983338	2.021174	-2.47	0.028	-9.349818	-.6168582
logavpcjexp	.8192574	.6472741	1.27	0.228	-.5790933	2.217608
logavpceexp	4.859094	1.376962	3.53	0.004	1.884348	7.833839
logavgdpcpta5	1.591678	.6237933	2.55	0.024	.2440544	2.939301
_cons	-8.072314	5.620413	-1.44	0.175	-20.21448	4.069851

Source: Derived from Stata using the author dataset.

Figure 60: Institution vs Colonial Revenue if Country is only French



Source: Derived from Stata using the author dataset.

In the second method, I run a regression analysis with a dummy variable in which the value of the colony is set to 1 if it is French and to 0 if it is British. For uniformity as above, I excluded public work expenditure. As expected, Stata runs the regression with all 30 countries in the calculus. The result of the regression, as shown in Table 20, does not differ from the original results of the two previous regressions. Colonial tax revenue is still negatively correlated with the institutional quality. The regression coefficient is (-4.710885) and the p-value is (0.020), which is also significant at 5 percent level.

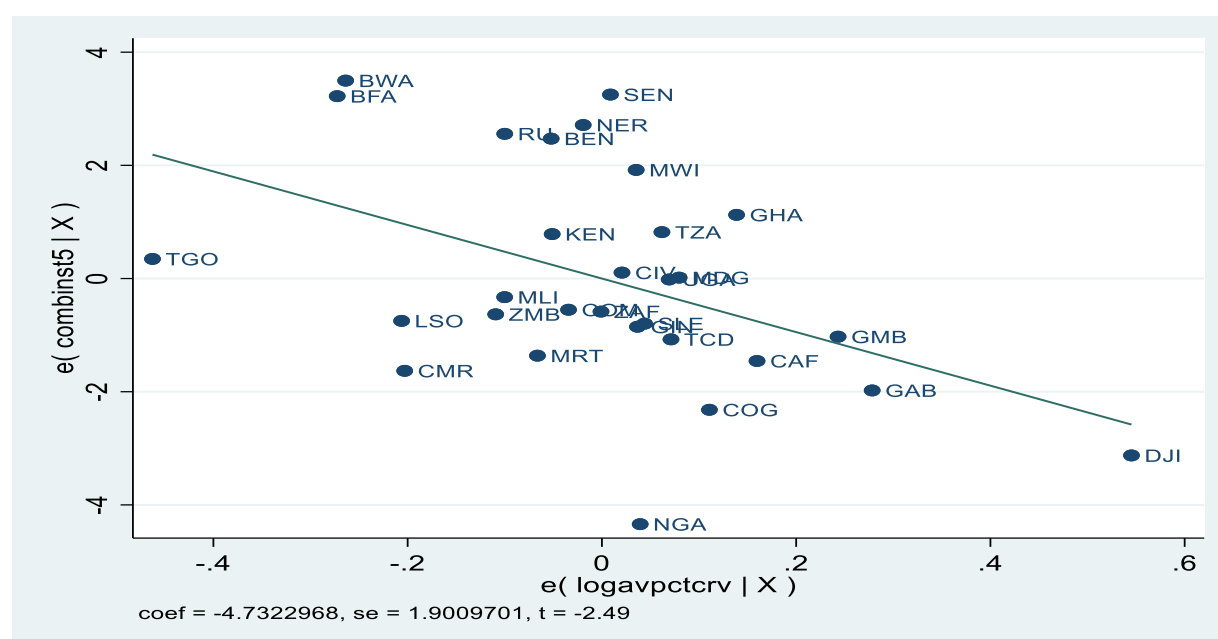
Table 20: OLS regression with dummy variable

Source	SS	df	MS	Number of obs	-	30
Model	171.67681	5	34.3353621	F(5, 24)	-	9.48
Residual	86.9358682	24	3.62232784	Prob > F	-	0.0000
				R-squared	-	0.6638
				Adj R-squared	-	0.5938
Total	258.612679	29	8.91767858	Root MSE	-	1.9032

combinst5	Coefficient	Std. err.	t	P> t	[95% conf. interval]	
logavpctcrv	-4.732297	1.90097	-2.49	0.020	-8.655706	-.8088874
logavpcjexp	1.28635	.6571023	1.96	0.062	-.0698428	2.642542
logavpceexp	2.980925	1.121511	2.66	0.014	.6662387	5.295611
reg_dummy	-1.575468	.9215558	-1.71	0.100	-3.477465	.32653
logavgdpcpta5	1.972357	.4788364	4.12	0.000	.9840876	2.960627
_cons	-10.49554	4.796117	-2.19	0.039	-20.39424	-.5968386

Source: Derived from Stata using the author dataset.

In addition, the result also shows a negative sign for the dummy variable, which means that the tax revenues of the French colonial states that emerged from the French tax initiative are poorly associated with the current institutional quality. An incremental increase in the financing of colonial states through taxes has a negative effect of (-1.570037) points on current institutional quality. Although the p-value of the coefficient is above the threshold of 0.05, it is significant at a threshold of 10 percent and the explanatory power of the model is quite high: 66 percent of the variation is explained by the model with the dummy variable. The trend of the relationship can be seen in Figure 61.

Figure 61: Institution vs Colonial Revenue with dummy variable

Source: Derived from Stata using the author dataset.

To summarize, the regression results confirm my main hypothesis that I put forward in section 7. I argued that: The pattern of colonial tax collection explains current institutional performance in the former British and French colonies in SSA. After applying this hypothesis to the data, I find that the colonial tax system, which was coercively imposed on the colonies and thus contributed to the emergence of the dual institutional system that influences current performance in SSA, still has a negative impact on institutional quality, particularly the rule of law.

This finding underscores the main contribution of this dissertation as it is, to my knowledge, unique in demonstrating the impact of colonial history, as measured by colonial tax revenue, on contemporary institutional quality in SSA. Although other studies (Acemoglu et al., 2001, 2002, Huillery, 2009; Frankema et al., 2014) have made similar efforts prior to my study, they have not succeeded in extending these efforts exclusively to the two largest imperial expansions in sub-Saharan Africa. As far as I am aware, no study to date has empirically examined the colonial impact of European colonization on contemporary institutional quality, particularly the rule of law, by combining the public finances of the two imperial pacesetters in sub-Saharan Africa. This finding is shown in Table 21.

Table 21: OLS regression with dummy variable with AVROL as dependent variable

Source	SS	df	MS	Number of obs	-	30
Model	5.61309691	5	1.12261938	F(5, 24)	-	8.75
Residual	3.08051568	24	.12835482	Prob > F	-	0.0001
Total	8.69361259	29	.299779744	R-squared	-	0.6457
				Adj R-squared	-	0.5718
				Root MSE	-	.35827

avrol5	Coefficient	Std. err.	t	P> t	[95% conf. interval]	
logavpctcrv	-.8233721	.3578389	-2.30	0.030	-1.561915	-.084829
logavpcjexp	.256228	.123693	2.07	0.049	.0009381	.5115178
logavpceexp	.4920272	.2111135	2.33	0.029	.0563104	.927744
reg_dummy	-.2733235	.1734738	-1.58	0.128	-.6313558	.0847088
logavgdpcpta5	.3500301	.0901362	3.88	0.001	.1639981	.5360622
_cons	-1.837688	.9028217	-2.04	0.053	-3.70102	.0256447

Source: Derived from Stata using the author dataset.

I first test this relationship with a dummy variable in the model and also without a dummy by excluding the variable public works which correlated with other independent variables. The results of both regressions show that colonial tax collection influences current institutions. Table 21 shows the result of the regression with dummy variable. The regression coefficient is (-.8179319) for colonial revenue and (-0.2726964) for the dummy variable, and the respective statistical significance levels are (0.031) and (0.129). In the second regression, as shown in

Table 22, the coefficient of colonial revenue is (-0.6911855) and the p-value (0.064) is slightly above the 5 percent threshold. However, the R-squared (0.6457) is quite high and the standard error (.0356308) is very small for the regression with dummy variable.

Table 22: OLS regression without dummy variable with AVROL as dependent variable

Source	SS	df	MS	Number of obs	=	30
Model	5.2944582	4	1.32361455	F(4, 25)	=	9.73
Residual	3.39915439	25	.135966176	Prob > F	=	0.0001
				R-squared	=	0.6090
				Adj R-squared	=	0.5464
Total	8.69361259	29	.299779744	Root MSE	=	.36874

avrol5	Coefficient	Std. err.	t	P> t	[95% conf. interval]	
logavpctcrv	-.6976859	.359028	-1.94	0.063	-1.437118	.0417461
logavpcjexp	.3318759	.1173258	2.83	0.009	.0902389	.573513
logavpceexp	.3757724	.2035798	1.85	0.077	-.0435081	.795053
logavgdpcpta5	.3367186	.0923618	3.65	0.001	.1464958	.5269413
_cons	-1.99328	.9236293	-2.16	0.041	-3.89553	-.09103

Source: Derived from Stata using the author dataset.

I run the same regression with all my independent variables in the equation and present the result in Table 23 and the graphical illustration in Figure 62. The regression results show a similar negative relationship between average rule of law, presented as the current institutional variable, and colonial table revenue in the former British and French colonies. The coefficient of the regression model is (-1.346897) and the p-value is (0.029), which is also significant at the 5 percent level. Despite the inclusion of the logavpcpwexp variable, the standard error is quite small (0.5794856) and the t-statistic (-2.32) is quite strong. Furthermore, the regression results show that the effect of the public good on the institution remains positive.

Table 23: OLS regression with AVROL as dependent variable and all independent variables

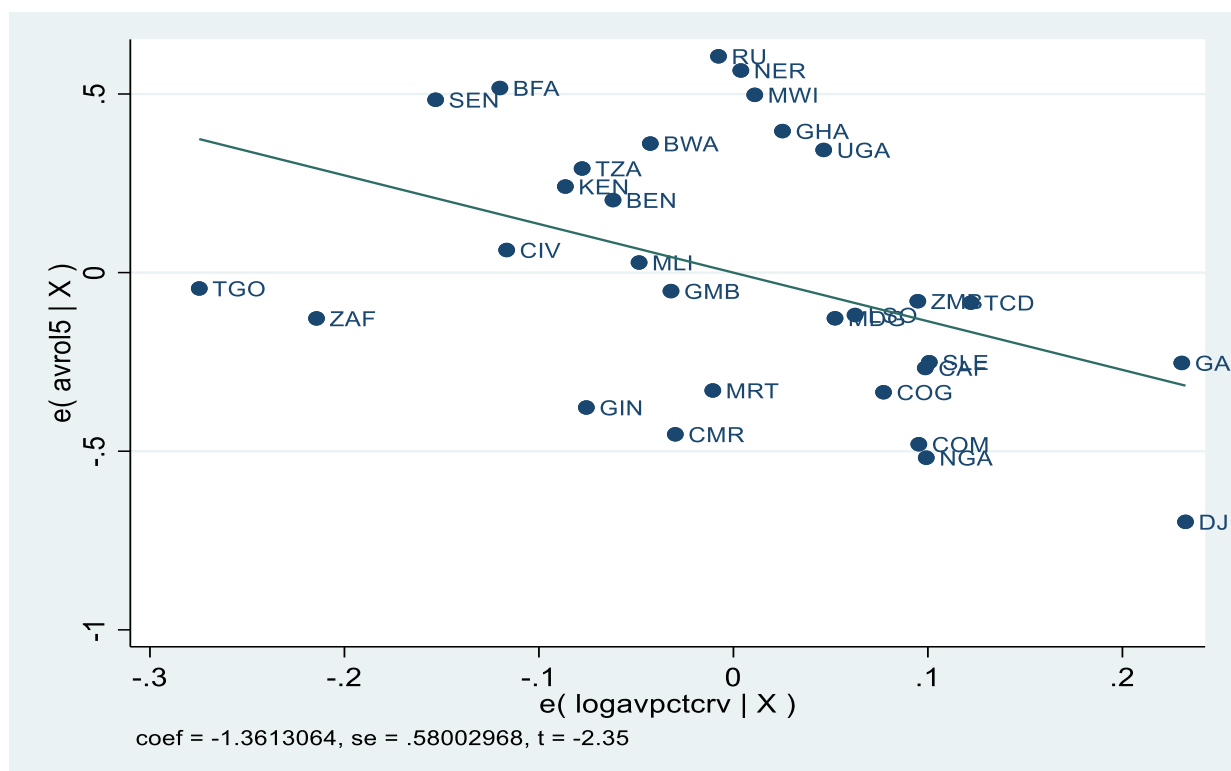
Source	SS	df	MS	Number of obs	=	30
Model	5.56427395	5	1.11285479	F(5, 24)	=	8.53
Residual	3.12933864	24	.13038911	Prob > F	=	0.0001
				R-squared	=	0.6400
				Adj R-squared	=	0.5651
Total	8.69361259	29	.299779744	Root MSE	=	.36109

avrol5	Coefficient	Std. err.	t	P> t	[95% conf. interval]	
logavpctcrv	-1.361306	.5800297	-2.35	0.028	-2.558429	-.164184
logavpcjexp	.2818012	.1200519	2.35	0.027	.0340263	.5295762
logavpcpwexp	.6324783	.4396759	1.44	0.163	-.2749681	1.539925
logavpceexp	.3780916	.1993674	1.90	0.070	-.0333825	.7895658
logavgdpcpta5	.3436101	.0905745	3.79	0.001	.1566735	.5305468
_cons	-1.509699	.9649393	-1.56	0.131	-3.501236	.4818378

Source: Derived from Stata using the author dataset.

This result confirms the hypothesis put forward in this dissertation that history explains the performance of the current state to a large extent through historical institutional channels. As the empirical result shows, the rule of law has suffered from institutional dualism that the colonial tax helped to finance and continues to perform poorly due to the lingering effect of history. This unique feature of African institutional structure, in my view, requires special attention. The finding of this dissertation raises some difficult questions for African leaders. Should they abolish the current institutions or continue on the path they are on? Or would it be better to reintroduce the indigenous institutions from before colonisation, given the turbulent history and lingering effects of colonial institutions? There is no simple answer to this question. Nonetheless, in the next section I will try to draw some takeaway from this research for the reader and make some suggestions about this thorny challenge.

Figure 62: Relationship between the average rule of law and colonial revenues



Source: Derived from Stata using the author dataset.

12. Conclusive key takeaway of the dissertation

The ongoing discussion about Africa's development problems since the emergence of "modern states and institutions" on the continent continues to paint a pessimistic picture of Africa (World Bank report, 2023; IMF report, 2022; see also section 2 of this dissertation). In addition, social development, and economic growth indicators in SSA lag those of the global regions. This circumstance has led to increased scrutiny of the institutional framework of the continent since

the emergence of the new institutional economics in recent debates (North, 1990). The result of these efforts has led to several explanations regarding the causes of institutional deficits on the continent. Against this background, I join the long list of academics by examining and contributing to the bulk of available explanations.

As I pointed out at the beginning of this dissertation in section 3, there are a variety of arguments on this topic, but they fall into three categories: Geography, Institutions and History. The geographical argument focuses on natural factors such as climate, weather and biodiversity operating through institutional channels to explain the region's current development problems (Diamond, 1997). The second argument, on the other hand, refers to the weak state and state capacity arguments arising from the discourse of weak institutions and governance (Bates, 1981, 1983, 2006; Mehlum & Torvik, 2006; World Bank, 1993; Akinlo, 2016).

Finally, the final argument relates to the historical antecedents of the current development problem in Africa. It is argued that the current development malaise on the continent is linked to Africa's colonial past. African states inherited extractive institutions as opposed to property rights institutions introduced in other parts of the world (Acemoglu et al., 2001, 2002). The common feature of these three arguments, however, is the emphasis on institutions. They are recognised as the mechanisms through which all 3 hypotheses operate.

With this background, I have developed my own hypothesis based on the historical argument, which I believe is more relevant to the question at hand: Does history explain current institutional concerns in SSA? I am particularly interested in colonial institutions, which owe their existence to the revenue constraints faced by the architects of the colonial project. Recognising that this constraint was alleviated by the imposition of colonial taxes on the indigenous population, I have developed a new dataset. The data of the colonial public finance in my dataset are based on primary sources from the colonial blue books of the British colonies and the financial documents of the French colonies.

I use an empirical approach to test my main hypothesis. The result shows that there is a negative relationship between colonial taxation and contemporary institutions as measured by the six aggregates of the Worldwide Governance Indicators (WGI) developed by Daniel Kaufmann and Aart Kraay in 1999. This means that an increase in colonial revenues, which meant higher taxation of the natives, leads to a decline in contemporary institutional quality. In my view, however, the fundamental problem of the colonial experiment in Africa does not lie in the extractive institutions that helped to finance the colonial state and against which the natives

eventually fully resisted during the colonial period. Rather, it lies in the dualistic institutional structure that it created.

As I have argued in sections 5 and 7, colonial administrations relied heavily on local chiefs to administer their territories, including the collection of taxes. Without taxes, formal administration would not have been possible. Taxes not only financed the colonial state, but also determined the predatory policies of the colonial administration and the emergence of today's institutional structure. The colonial administration was not able to fully replace indigenous institutions, as was the case in the New World, thus enabling the emergence of a dualistic institutional structure (Ekeh, 1975; Robert & Mann, 1991 Wolfe, 2006; Adebani, 2017). Against this background, I argue that this unhealthy coexistence has weakened the institutional quality – the "rules of the game". Against this backdrop, I contend that the "game" can only achieve the desired outcome with one rule.

I further argue that the duality of this institutional framework is a serious problem because institutions are the primary arbiters of human interactions and therefore dictate social coordination and cooperation. They determine economic development and a rule-based society by reducing the transaction cost (North, 1990). Institutions reflect human behaviour and belief systems (Weber, 1909), i.e. they reflect the "regularity" in our behaviour, our "instinctive drives" (Hayek, 1978/2021). They are the norms we develop through our behaviour (Tuomela, 1995), i.e. what we perceive or believe to be right and therefore agree to. In short, institutions facilitate compliance with rules and thus promote a just society.

The interconnectedness between institutions, behaviour, and belief systems described in Section 3 is central to the argument of this dissertation. It is important to understand that European institutions were developed on the basis of European cultural values and belief systems that contrast with those of Africans, as I have shown in Section 6. Furthermore, as shown in Section 8, European Institutions were not adapted to local conditions because there was no demand for them and did not reflect Africans values. This is underscored by the outright rejection of colonial rule by the locals, especially tax policy.

Based on the above, I argue that the institutions introduced by European colonialism, which entail a different pattern of social organisation for Africans, require different individual and collective behaviours to which Africans were not necessarily accustomed. I argue that this pattern persists because the conquerors' institutions derive their legitimacy from a different moral source from that of Africans. Thus, if we assume that the African cultural values and beliefs that dictate participatory behaviour in collective action, and the institutions that govern

interactions, are different from those of the colonisers and therefore require different behaviours, then we face a serious contradiction in the continent's current institutional structure.

First, I will explain what I mean by European and African institutions. I will not attempt to give a specific definition of institutions other than the one formulated by Douglas North (1990) – institutions as “rules of the game” – which arguably forms the cornerstone of many definitions currently available. Second, I will explain how the concept of free-riding explains the behaviour of participants in this institutional framework, and finally, I will explain why I believe they do not work. This is my view and my view alone based on this research.

I define European institutions as all the social forms of organization that the former colonies inherited from the colonizers. However, I will limit these constructs to political institutions, economic institutions, educational institutions, legal institutions, cultural institutions, and religious institutions. Political institutions refer to the nature of authoritative arrangements, i.e., government, while by economic institutions I mean the institutions of property rights and contract law.

By educational institutions I mean the entire educational system, starting with family education, which the first line of the educational system, which ensures the transmission of knowledge and skills for a productive member of society. In addition, I define cultural and religious institutions, although there is a distinction between these two terms, as all the structures, values, norms, spiritual beliefs and blueprints that determine our moral behaviour and serve as guidelines for society. Finally, legal institutions are laws, courts and sanctionable rules that form the basis of a rule-based society.

I would also like to clarify that Africa had institutions similar to the European institutions mentioned above. The region had its own political order and its own social institutions. I am not distinguishing between African and European institutions from a pure definitional aspect, but I must clarify that the institutions on both sides are quite different conceptually and in perception, as I explained in section 6. I am also inclined to disagree that there might be certain similarities in the institutional arrangements of the two regions (Europe and Africa) from the perceptive aspect (see section 6). Even if there were such similarities, I consider them trivial, otherwise there would have been no reason to impose European institutions on the people of Africa.

I argue that European institutions had and have no moral basis in the African context and therefore have no legitimacy for the majority of Africans. I contend that this was the case during

the colonial era and is still the case today. Anyone who follows the international news will find this view reflected in recent statements by notable African personalities such as Kenyan President William Ruto, Dr. Arikana Chihombori-Quao, the former AU Ambassador to the United Nations, and Rwandan President Kagame. However, I do not deny the moral basis that led to the introduction of Western institutions in the former colonies, driven by the spirit of European superiority.

Apart from the delusional racial argument of superiority that partly justified the imposition of Western institutions in Africa, I argue that the main reason of their introduction was to eliminate the competition that African institutions posed to the legitimacy of the colonizers' institutions and their rulership in the region. I do not discount the cultural argument altogether, but I do not believe that the whole effort was just about civilizing the "backward" Africans. The missionaries may have harboured such belief, but the colonial administration, driven by the emerging capitalist class in Europe that had launched the whole project, could not have cared less about this civilizing mission, in my opinion. It was all about "money", resource control.

Like others before me (Ekeh, 1975), however, I would like to stress that the struggle for decolonization led by educated Africans was directed primarily against the incumbency of their main rivals – European colonial administrators – and not for the overthrow of European institutions without which educated African elites themselves had no legitimate claim to political authority. Although they demonized colonial rule and promised to rid the continent of its infrastructure, their true motives, in my view, were at odds with those of the weakened indigenous political leadership who saw these institutions as a threat to their own authority from the beginning (Caplan, 1969).

Furthermore, I would like to point out that something important happened with the beginning of decolonization that has escaped the general discourse. When Africa became politically independent, it not only "divorced" from its former "master", but also from itself. Allow me, therefore, to elaborate on this important point in the historical development of the region. Decolonization meant first and foremost the physical termination of the official rule of the foreign ruler, but the retention of his toolkit (institutions).

However, it also meant a "divorce" from African institutions, since the new ruler – African educated elites – did not fall back on pre-colonial African institutions (see section 6 on pre-colonial African institutions). The new ruler, whom Ekeh calls the new "African bourgeoisie", would not return to the old institutional arrangements – the pre-colonial institutions – because without the political institutions of the former competitor (the European ruler), he lacks

legitimacy, i.e. legitimacy in the traditional African sphere. This is the classic case of rational choice theory.

Much worse, however, is that the political standards and decisions of the new incumbent (educated elites) must be measured against European standards, and this pattern has carried on in postcolonial African relation with their former "bosses". Since the end of colonial rule, the Western world has always dictated the behaviour of African political leaders either directly or indirectly through international aid. Those who have resisted this international status quo – the world order – have not been well rewarded. Europe's paternalistic behaviour toward its former colonies followed the colonial pattern, and this clearly explains France's attitude toward its former colonies, although not alone in doing so.

I argue that the lack of legitimacy of the new African leaders in the traditional realm explains why politics has always revolved along ethnic and tribal lines, a tactic right out of the colonial playbook. Tribalism and ethnic identification are an invention of European colonial rule. Terrence Ranger argues that "Almost all recent studies of nineteenth-century precolonial Africa have emphasized that far from there being a single 'tribal' identity, most Africans moved in and out of multiple identities, defining themselves at one moment subject to this chief, at another moment as a member of that cult, at another moment as part of this clan, and at yet another moment as an initiate in that professional guild... the boundaries of the 'tribal' polity and the hierarchies of authority within them did not define conceptual horizons of Africans."

Similarly, Mamdani argues that "Did tribe exist [in Africa] before colonialism? If we understand by tribe an ethnic group with a common language, it did. But tribe as an administrative entity that distinguishes between natives and non-natives and systematically discriminates in favour of the former against the latter – defining access to land and participation in local governance and rules for settling disputes according to tribal identity – certainly did not exist before colonialism."

Another aspect of the problem, however, is that full decolonisation, which I define as formal and informal withdrawal, was not evident. France and Britain needed their former colonies politically and economically against the background of growing nationalist movements in the colonies and the rise of the Soviet Union. The Soviet Union posed a direct threat to the hegemony of imperial Europe and the United States (Hyam, 1988). France and Britain saw their former colonies as a means of economic recovery after the Second World War and as a geo-strategic location to secure their sphere of international influence. They therefore sought to

achieve this through political, economic, and military treaties as the winds of decolonisation blew ever stronger.

Considering the above, the former “masters” had every interest in maintaining their heritage (institutions) in their former possession, even if they were reluctant to physically part with them. I argue that the need to maintain control over their former colonies never changed in the attitude of the former imperial powers, at least not in the attitude of France, which had succeeded in keeping its former colonies under its political and economic control and “getting away with it,” as Tamar Golan indicated (Golan, 1981).

I argue that this has not changed for two main reasons: economic and political. Economically, Africa has always been not only a source of cheap raw materials for the former “masters,” especially France, notwithstanding other players such as China, but also a huge source of capital flight by French companies to France due to the CFA currency regime, which largely contributes to poverty in the region. The French energy, aeronautics and arms industries are heavily dependent on the CFA zone countries for the supply of key raw materials. These sectors are of great importance to the French economy. This relationship has kept the zone in a situation of dependency and prevented development in the region and the diversification of its economy (Taylor, 2019).

Considering that the current institutions in Africa have no moral basis in the traditional African world and derive their legitimacy solely from the consent and appreciation of their founders (former imperial powers), it is not difficult to understand why African leaders are reluctant to completely overthrow the system. This was the case at the time of the takeover (independence) and is still the case today, although many of them recognise the implications of this system. An abrupt, complete overthrow of colonial institutions will create a vacuum that will be difficult to fill with existing traditions given the diversity within the regions. This is the reason why I have argued for institutional reconciliation.

Moreover, decolonization meant not only the political "divorce" from Africa's political institutions and the way they conducted their economic activities, but also the complete abandonment of Africa's religious values through the adoption of Christianity, as well as the weakening of the continent's cultural metrics, especially in SSA. This sentiment is reflected in Rwandan President Paul Kagame's response to a BBC question about upholding democratic

and human rights¹⁹ values in Africa. He argues that Europeans do not have a monopoly on values and that others have values as well.

This situation has led to friction in African society with sections of the population who, in their quest for status, on the one hand pander to European institutions and, on the other, make a complete 360-degree turn when the going gets tough. I believe that such a stance is a) motivated by opportunistic reasons for most of these proponents and b) an option that will be very difficult to realize due to changing social conditions. The Africa of today is much younger, more intelligent due to lower information costs, but also with a desire for a different outcome without wanting to completely turn away from its culture. The problem with realizing the latter goal, however, is that it cannot be achieved by following two “rules of the game”.

One of the consequences of the dualistic framework created by the colonial episode is that the formation of a national identity was prevented. The politics of the last 6 decades is a testimony to this development. People in different African countries initially identified themselves in ethnic and tribal terms. An example of this is the recent political dynamic in Guinea between former President Alpha Condé, who is a Malinké, and Cellou Dalein Diallo, a Fula/Peuhl; in Côte d’Ivoire between Alassane Ouattara from the North and Ghabo Laurent from the South; and, in Kenya between Uhuru Kenyatta, who belongs to the Kikuyu tribe, and Raila Odinga from the Luo ethnic group. In all these cases, people voted primarily along ethnic lines without thinking about the issues that affect their daily lives.

The second point I want to make in relation to the dualist framework of African institutions is that it has created the possibility of institutional free-riding. By this I mean the attitude of switching back and forth between the two institutions whenever one of them suits them, and this applies to both politicians and ordinary citizens. Politicians in particular are very clever in this respect. They use the European institutions while playing the cultural card to get to the top, but feel no moral obligation to the population in general, except for some members of their ethnic group who have a platform.

However, when the outside world, especially the former “masters” who often do not act out of genuine concern for the locals, question or criticise them, they are quick to jump on the anti-colonial narrative to distract from the real problem. In such cases, one often hears: “We are no longer a colony and can make decisions for our own people”. Although this rhetoric is often

¹⁹ <https://www.youtube.com/watch?v=fWouunkqO0o> Although Youtube links are not academic reference, the link provide a valuable statement by president Paul Kagame.

true due to the interference of former colonial rulers, especially France, in the national affairs of their former colonies or their support for unpopular incumbents due to their national interests, it is possible to navigate between the two narratives.

Similar behaviour can be observed at the societal level. A clear example is the institutions of marriage. Most Africans, whether educated or uneducated, marry according to traditional rules. In general, they value these rules and believe in them. Nowadays, however, disputes arising from these relationships often end up in formal courts (state courts) if one party is not satisfied with the outcome of the dispute. In many of these countries where this is the case, civil marriage is recognised by state institutions, but the majority of people prefer the traditional institutions when it comes to marriage. In my view, this provides the opportunity for free-riding, as people have no problem leaving either institution if it no longer suits their interests.

The main consequence of institutional free-riding is that it undermines the rule of law and thus collective behaviour. In my view, governments like to use the shield of Africanness to protect themselves from outside criticism and play the nationalist card rooted in African values. But they can only maintain their power through the same institutions that they are quick to attack when threatened, and that is a serious problem. So, the question is what can be done to solve this problem. On the one hand, the West has always kept the former colonies on a short leash because of these institutions, but on the other hand, Africans have never really reflected the spirit of the institutions that formally govern their interactions.

One of the goals of this dissertation is to offer a workable solution to the dualistic structure of African institutions, particularly in sub-Saharan Africa. In my view, it would not be prudent to completely overthrow the current formal structure entirely and remain competitive in the global arena. A full overthrow as I briefly noted before, would entail a high organisational cost. At the same time, continuing on the current path will further delay the continent's development and prevent any meaningful change. What we need, in my view, is reconciliation, reconciliation of the two institutions through intelligent reforms. Allow me to elaborate on this.

One of Africa's main problems since independence has been the low level of accountability of heads of state and government to their people, which I argue has been enabled by several factors. The retention of European institutions without any adaptation to local realities (values and beliefs), which has been made possible by the support of the former “masters,” especially in the case of France, and the control of the means of violence concentrated in the realm of what Peter Ekeh calls the “civil public,” namely the government.

What I am saying is that the chances of introducing Sharia law in Europe are greater than trying to replace a traditional African chief with someone who does not deserve it (a legitimate successor). The traditional chief is accountable to his people because the strength of any viable rule rests on the faith and acceptance of the people ruled. There are several expectations that are placed on the traditional chief and which he must fulfil, as I have outlined in this section 6. He is subject to competition within the hereditary house and is judged by his peers and the people on his performance. He has a moral obligation and must be accountable.

In contrast, the modern ruler (the educated African elite) has no moral obligation to his people, apart from the members of his tribe and his inner circle (foreign and national), because the institution that support his rulership do not derive its moral obligation from the society he or she rules. In my view, this moral (intangible) accountability is paramount to upholding a tangible accountability. As long as the values that legitimize the existence of the formal institutions differ from the values that justifies the traditional institutions, I believe it will be difficult to have an inclusive, rules-based society.

Indeed, people always rejoice when a president duly elected according to formal democratic rules is overthrown by a coup d'état. In my view, this happens because the sources of legitimacy of the modern and traditional realms are different, otherwise the people would resist an illegitimate overthrow of a duly elected ruler. If a similar action were to take place in the traditional world, there would not be a similar reaction as in the modern world because people believe in and abide by the rules of the traditional world. This is where I think the problem lies.

In my view, the foundation of the rule of law begins with the initial acceptance of the laws of the institutions that govern our coexistence. In my view, sanctions only serve to prevent free-riding. If a rule is not accepted by the majority, no sanction would ensure its survival, because people make the rule and thus ensure its application. Therefore, there should be a rule that people believe in and abide by voluntarily and without physical coercion. This will restore accountability and strengthen a common identity. As the saying goes: "We become our brothers' keepers"

I believe the rule should be clear, understandable, and accessible to all. People get away with it because the dual nature of the rules allows free riding and thus distorts collective action. For example, if people in Africa believe that traditional marriage is what they prefer and that it does not violate a fundamental human right and human dignity, then so be it. This should be formally clear and understood by all. Then it will be easy to gain support for its preservation and to protect it from any threat, and I think this should apply to all social institutions in a country. In

my view, and based on this research, this is a more plausible way of restoring accountability and reducing the weight of external influence in Africa.

13. Conclusion

In nutshell, the main conclusion of this dissertation is the in-depth examination of Africa's institutional challenges, rooted in its colonial past and the subsequent dualistic framework of governance. The analysis underscores the profound influence of European institutions on African societies and the ongoing struggle for legitimacy and accountability within these structures. Furthermore, it proposes a path to reconciliation and argues for intelligent reforms that bridge the gap between traditional African institutions and the inherited European framework. This synthesis aims to promote a more inclusive and accountable system of governance, based on shared values and voluntary adherence to rules, as a crucial step towards sustainable development and collective progress in Africa.

Like much previous research, this dissertation addresses the intricate web of African performance in sub-Saharan Africa from a historical perspective, the patterns of which persist through institutional channels in contemporary Africa. To this end, I have created a new dataset on colonial public finance. It includes colonial revenues and expenditures. Using econometric regression, I empirically demonstrate that there is a negative correlation between Africa's historical relationship with Europe, namely the colonial experience, and the level of institutional quality in Europe's former imperial backyards in sub-Saharan Africa.

The result of this research shows that a gradual increase in the level of colonial tax extraction is associated with a deterioration in the quality of institutions in sub-Saharan Africa today. This underscores the empirical basis of the enduring legacy of the European presence in Africa, particularly in relation to the dual institutional system created by the European fiscal imperative. I argue, therefore, that this dualism has persisted throughout history and is an impediment to institutional performance across the region. I further argue that Africa's poor performance due to institutional dualism is due to institutional free-riding caused by European colonialism.

This study is a valuable contribution to the institutional literature related to the colonial history in that it provides a novel dataset on the colonial public finance of the two of the biggest imperial powers in Africa: France and Britain. Consistent with other studies it shows that the colonial state invested less in the development of their territories compared to the level extraction. To the best of my knowledge, there is no other work that has used an econometric regression

methodology to empirically establish a link between European colonization in the context of colonial tax and current institutional performance in SSA.

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APPENDIX

1. Aggregation methodology of the dataset

The colony of Dahomey

The colony of Dahomey, now Benin, was a French colony attached to the colony of Senegal, which became an autonomous colony in 1894 and was incorporated into the Federation of French West Africa AOF (Afrique Occidentale Française) in June 1904²⁰ (Péhaut, 1964). Following the establishment of the Fifth Republic, the colony became a self-governing republic in 1958 before gaining full independence from France in 1960. The colony of Dahomey consisted of the “Haut Dahomey” and the “Bas Dahomey”²¹

The data on the revenues and expenditures of the Dahomey colony come from the “compte définitif des recettes et des dépenses” and the “budget du service local” that I retrieved from the Gallica digital archive, and were aggregated by adding up all the revenues of “Haut and Bas Dahomey” minus all the revenues that did not come from the colony. Similarly, I also did the sum of the values of each variable for colonial expenditures to obtain their aggregated values. However, to obtain a per capita result, I divided the aggregated values by the population figures calculated by Frankema and Jerven.

In 1900 and 1901, the expenses for the “gardes indigènes” in Upper Dahomey appear under the heading “troupes indigènes”. The latter have more of a military function. I extracted the expenditures from the latter heading and added them to the total expenditures for the colony's police. The expenditures consisted of the salaries of the personnel (inspecteur 2e and 3e class, grade 2e class, a brigadier and sous brigadier. Total amount = 121433.70). (See chap. IV of the CDRD, 1900).

In the following years 1900, 1909, 1910, 1911, 1912, and 1913, the heading “Judicial Expenditure” does not appear in Dahomey's accounting report. The only expenditures related to this heading are the following: 1500 fr, 4500 fr, 4512 and 6240.90 fr for 1900, 1911, 1912 and 1913 respectively (see article 4 of the “accessories de solde”, “divers services” and “personnel de l'administration des cercles” of the “compte définitif” for the respective years mentioned above). The expenditures are unspecified judicial expenditures, expenditures for

²⁰There is conflicting information in the literature about when the colony of Dahomey was founded.

²¹“Haut Dahomey” (Upper Dahomey) and “Bas Dahomey” (Lower Dahomey).

officials in charge of registrations, mortgages, guardianships and maritime registrations, expenditures for bailiffs, allowances for various court secretaries and for members of indigenous courts. To the judicial expenses in 1901 I have also added the expenses for bailiffs amounting to 1200 fr.

For the year 1903 and 1907, I use the data of the (BSL) because the (CDRD) were not available.

Total Net Revenue

Total Net Revenues = [Direct taxes (Contributions directes) + Indirect taxes (Contributions indirectes) + Other taxes (Produits divers)]

Table: Aggregation of the Revenue of the colony Dahomey 1907-1913

Year	Recettes Ordinaires				Autres Contributions (OC)		Total Net Revenue
	Contributions Directes (CD)		Contributions Indirectes (CI)		Produits Divers des Contributions ordinaires		
	Titre	Article	Titre	Article	Titre	Article	
1907 - 1908	1	1	1	3(3)*	1	3**	Σ CD,CI, OC
1909 - 1910	1	1	1	2	1	3	Σ CD,CI, OC
1911 - 1913	1	1	1	2		3+4	Σ CD,CI, OC

Source : Développement des Recettes 1907 -1913. Compte définitif des recettes et des dépenses la colonie du Dahomey. Bibliothèque Nationale de France. Gallica digital library. www.bnf.fr

Note : 3(3)* (Items / Paragraph 3 of Article 2 under Titre 1) ; 3** (Sum of all the Items / Paragraph of Article 3 excluding items3)

From 1919 Total Net Revenue = Direct taxes (Contributions sur Rôles) + Indirect Taxes (Produits des exploitations industrielles + Droit d'enregistrement + Timbre) + Other revenues (Domaines + Forêts + Produits percus sur ordre de recettes²² + recettes extraordinaires)

Table: Aggregation of the Revenue of the colony Dahomey 1919-1925

Year	Contributions Ordinaires				Autres Contributions (OC)				Total Net Revenue
	Contributions Directes		Contributions Indirectes*		Produits Divers des Contributions ordinaires		Produits Recettes extraordinaires		
	Rubric	Article	Rubric	Article	Rubric	Article	Rubric	Articles	
1919	Ch.1	1+2+3	Ch.3+Ch.2	(1+2+3+4) + (1+2)	Ch.2+4(1)*+ 6+	(3+4) + (2+3+4+5) + (1)	Ch.8	1	Σ CD,CI, OC
1920 - 1923	Ch.1	1+2+3	Ch.3+Ch.2	(1+2+3+4) + (1+2)	Ch.2+4(1)*+ 6+	(3+4) + (2+3+4+5) + (1)	-	-	Σ CD,CI, OC
1924 - 1925	Ch.1	1+2+3	Ch.3+Ch.2	(1+2+3+4) + (1+2)	Ch.2+4(1)*+ 6	(3+4) + (2+3+4+5) + (1)	Ch.8	1+2+3	Σ CD,CI, OC

²² I excluded from « Produits percus sur ordre de recettes » all the subsidies ("Subventions")

Source : Développement des Recettes 1919 - 1925. Compte définitif des recettes et des dépenses de la colonie du Dahomey. Bibliothèque nationale de France. Gallica digital library Bibliothèque nationale de France. Gallica digital library. www.bnf.fr

Note: 4(1)* (Total of chap.4 excluding article 1). Sect*= Section. All the values detailed in the table below are in francs.

Police and prison Expenditures

Table: Aggregation of the Police Expenditures of the colony Dahomey 1907-1925

Year	Polices et Prisons		Police and prisons Expenditures
	Rubric	Items	
1907	Ch.10	Art.1+2+3+4	∑ Articles
1908	Ch.11 + Ch.12	-	∑ Chapters
1909	Ch.13+Ch.14+Ch.15+Ch.16+Ch.17	-	∑ Chapters
1910 - 1912	Ch.14+Ch.15+Ch.16+Ch.17	-	∑ Chapters
1913	Ch.7+Ch.8+Ch.9+Ch.10	-	∑ Chapters
1919 - 1925	Ch.4 + Ch.5	Art(6+7+9+10) +Art(5+6+8+9)	∑ Articles

Source : Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de la colonie du Dahomey. Bibliothèque Nationale de France. Gallica digital library. www.bnf.fr

Table: Aggregation of the Public Works Expenditures of the colony Dahomey 1907-1925

Year	Travaux publics		Public Works
	Rubric	Items	
1907	Ch.12 +Ch.13	-	∑ Chapters
1908	Ch.15 + Ch.16	-	∑ Chapters
1909	Ch.19 + Ch.20	-	∑ Chapters
1910 - 1912	Ch.20 + Ch.21	-	∑ Chapters
1913	Ch.18 + Ch.19	-	∑ Chapters
1919 - 1920	Ch.8+Ch.9+Ch.10+Ch.11	Art.(6) + Art.(6) + Art.(6)	∑ Articles + Ch.
1921 - 1922	Ch.8+Ch.9+Ch.10+Ch.11	Art.(6) + Art.(7) + Art.(7)	∑ Articles + Ch.
1923	Ch.8+Ch.9+Ch.10+Ch.11	Art.(7) + Art.(7) + Art.(7)	∑ Articles + Ch.
1924 - 1925	Ch.8+Ch.9+Ch.10+Ch.11	Art.(5) + Art.(5) + Art.(5)	∑ Articles + Ch.

Source : Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de la colonie du Dahomey. Bibliothèque Nationale de France. Gallica digital library. www.bnf.fr

Table: Aggregation of the Healthcare Expenditures of the colony Dahomey 1907-1925

Year	Hygiène et Assistance		Healthcare Expenditures
	Rubric	Items	
1907	Ch.11	Art.1+2+3+4	∑ Articles
1908	Ch.18 + Ch.19	-	∑ Chapters
1909	Ch.17 + Ch.18	-	∑ Chapters
1910 - 1912	Ch.18 + Ch.19	-	∑ Chapters
1913	Ch.17 + Ch.18	-	∑ Chapters
1919 - 1925	Ch.12 + Ch.13	Art(1+2+3+4+5) + Art(1+2+3+4+5+6)	∑ Articles

Source : Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de la colonie du Dahomey. Bibliothèque Nationale de France. Gallica digital library. www.bnf.fr

Table: Aggregation of the education expenditure of the colony Dahomey 1907-1925

Year	Service de l'enseignement		Education Expenditures
	Rubric	Items	
1907 - 1908	Ch.7	Art.1+2	∑ Articles
1909	Ch.8 + Ch.9	Art.1+2+3+4+5+6+7	∑ Articles
1909 - 1911	Ch.15	Art.1+2+3+4+5+6+7+8	∑ Articles
1910 - 1912	Ch.9 + Ch.10	Art.1+2+3+4+5+6+7+8	∑ Articles
1913	Ch.15 + Ch.16	Art.1+2+3+4+5+6+7+8	∑ Articles
1919 - 1925	Ch.12 + Ch.13	Art.(6+8) + Art.(7+9)	∑ Articles

Source : Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de la colonie du Dahomey. Bibliothèque Nationale de France. Gallica digital library. www.bnf.fr

Table: Aggregation of the Justice expenditures of the colony Dahomey 1907-1925

Year	Service judiciaires / Service d'administration générale		Justice Expenditures
	Rubric	Items	
1907 - 1908	Ch.7	Articles.1	∑ Articles
1911	Ch.3	Articles. 4 (Item 6)	∑ Articles
1912	Ch.4	Articles. 4 (Item 3)	∑ Articles
1913	Ch.4	Articles. 4 (Item 5) + Art.5	∑ Articles
1919 - 1925	Ch.4 + Ch.5	Articles. (5) + (5)	∑ Articles

Source : Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de la colonie du Dahomey. Bibliothèque Nationale de France. Gallica digital library. www.bnf.fr. Note: there were no justice Expenditures in 1909 and 1910.

I excluded from the colony's total revenue all subsidies granted by the federal government of the AOF as well as all amounts collected from the reserve funds for the following years of 1902, 1905, 1906, 1907, 1909, 1910, 1911, 1912, 1913, 1914, and 1915. The revenues are in francs and detailed in the table below.

Table Subsidies and Loans("Emprunts"), received, and Revenue collected from the Reserve Funds of the colony of Dahomey

Year	Subsidies	Reserve fund
1907	1600000	257580,08
1908		
1909	1480000	165000
1910	1540000	-
1911	1700000	600000
1912	1825000	884736,40
1913	2000000	505233,41
1919	291146	166953,12
1920	1003669	515774,97
1921	11970	586972,69
1922	640356,84	-
1923	6000	332052,30
1924	6000	-
1925	6000+140281	1245000

Source: Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de la colonie du Dahomey. Bibliothèque nationale de France. Gallica digital Library. www.bnf.fr

The colony of Madagascar et Dependances

The Colony of Madagascar was a French colony established after the second Franco-Malagasy war that resulted in the fall of the Kingdom of Merina and the establishment of a French protectorate in 1896, which then became a colony. After a series of rebellions and colonial reforms, the colony of Madagascar became an autonomous territory within the French community in 1956 through the Overseas Reform Law "la Loi cadre Defferre" and gained full independence on June 26, 1960.

I obtained our data from the financial records of Madagascar and dependent territories namely the (CDRD) and the (BSL) in the French digital library. The headings related to variable revenues are labelled differently in the colony's financial records than in those of the other colonies on the French list. It consists essentially of "Produits du Domaine, contributions sur rôle et assimilés, contributions indirect perçues sur liquidation, Produits et revenus divers, Produits du chemin de fer, et Les Produits de l'assistance médicale indigène.

Total Net Revenues = Direct taxes (contributions directes / contributions sur rôle et assimilés) + **Indirect taxes** (contributions indirectes / contributions perçues sur liquidation) + **Other taxes** [Produits du Domaine + Autres Contributions / Produits et revenus divers + Reste à recouvrer + Recette d'ordre + budget / recettes extraordinaires (**excluding Emprunt and Prélèvement sur la caisse de réserve**)]

Table: Aggregation of the revenue of the colony of Madagascar 1907-1925

Year	Contributions sur Rôles (CR)		Contributions sur Liquidation (CL)		Autres Contributions (OC)		Total Net Revenue
	BO/RO	BE/RE	BO/RO	BE/RE	BO/RO	BE/RE	
1907	Ch.2	-	Ch.3+4(1+3)*	-	Ch.1+4(*)+5	S2 (§.2)	Σ CR,CL, OC
1908 - 1911	Ch.2	-	Ch.3+4(1+3)*	-	Ch.1+4+5	S2 (§.2)	Σ CR,CL, OC
1912 -1913	Ch.2	-	Ch.3+4(1+3)*	-	Ch.1+4+5+6	S2 (§.2)	Σ CR,CL, OC
1919	Ch.1	-	Ch.2+3	-	Ch.2(5+6+7)*+ Ch.4+6	-	Σ CR,CL, OC
1920, 22, 23, and 1925	Ch.1	-	Ch.2+3	-	Ch.2(5+6+7)*+ Ch.4+6	-	Σ CR,CL, OC

Source : Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de Madagascar et dépendances. Bibliothèque Nationale de France. Gallica digital library. www.bnf.fr

Note 1: 4(1+3)* = item 1 and 3 of chapter 4; 4(*)= all the items of chapter 4 excluding 1 and 3; 2(5+6+7)*= item 5, 6 and 7 of chapter 2;

Note 2: BO / RO = Budget / Recettes ordinaire; BE / RE = Budget / Recettes extraordinaire; S= section; §= paragraph; **Note 3 :** I added to diverse revenues the values of direct taxes and other diverse incomes that were not collected. The amount was 64756,79 fr. (Chapter, développement des revenus, CDRD 1907). **Note 3:** There was no specification about the nature of "recettes extraordinaires diverses" (Section 3, § 4 CDRD 1907, développement des revenus). Therefore, added it to divers revenues after checking that it no subsidy or income from the reserve funds. **Note 4:** Since I did add the value of the loan to the total revenue, I did not consider the exceptional expenditures

which consisted of the construction cost the railway and water supply infrastructures because a corresponding loan was received to cover the charges. That loan was recorded as an extraordinary income. **Note 5:** I used the BSL of 1919 because the CDRD was not available.

Police et prisons (Police and prison Expenditures) = [Garde régionale + Police & Prisons / Police administrative]

Table: Aggregation of the Police Expenditures of the colony of Madagascar 1907-1925

Year	Polices et Prisons		Police and prisons Expenditures
	Rubric	Items	
1907 - 1911	Ch.9 + Ch.10	-	Σ Chapters
1912	Ch.10 + Ch.11	-	Σ Chapters
1913	Ch.5 + Ch.6	-	Σ Chapters
1919	Ch.4 + Ch.5	Art(7+8+9) + Art(4+5+6)	Σ Articles
1920 - 1923	Ch.4 + Ch.5	Art(7+8+9) + Art(6+7+8)	Σ Articles
1925	Ch.4 + Ch.5	Art(10+11+12) + Art(9+10+11)	Σ Articles

Source: Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de Madagascar et dépendances. Bibliothèque nationale de France. Gallica digital library. www.bnf.fr

Notes: From 1919, the Heading Police et prisons was recorded under the heading of “Service d’administration Générale (Personnel et matériel)”.

Travaux publics (Public Works) = [Travaux publics (Personnel + Réparations et entretiens + Matériel)]

Table: Aggregation of the Public Works of the colony of Madagascar 1907-1925

Year	Travaux publics		Public Works
	Rubric	Items	
1907 - 1911	Ch.12	Articles. 1+2+3	Σ Articles
1912	Ch.13 + Ch.14	-	Σ Chapters
1913	Ch.16 + Ch.17	-	Σ Chapters
1919	Ch.8 + Ch.10	Art.(4) + Art.(4+5+6)	Σ Articles
1920	Ch.8 + Ch.10	Art.(4) + Art.(4+5+6)	Σ Articles
1922	Ch.8 + Ch.9 + Ch.10	Art.(4) + Art.(4) + Art.(4+5+6)	Σ Articles
1923	Ch.8 + Ch.10	Art.(4) + Art.(4+5)	Σ Articles
1925	Ch.8 + Ch.10	Art.(3) + Art.(3+4)	

Source : Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de Madagascar et dépendances. Bibliothèque nationale de France. Gallica digital library. www.bnf.fr

Notes: In 1919, the rubric Travaux publics was recorded under the rubric of “Dépenses d’exploitations industrielles”.

Dépenses d’exploitation industrielles (Public Works) 1919 = [Dépenses d’exploitation industrielles ; personnel (Travaux publics) + Dépenses d’exploitation industrielles ; matériel (Travaux publics)]

Hygiènes et Assistance (Healthcare Expenditures) = [Hygiène et Assistance (Personnel +Matériel + secours + Dépenses des exercices clos)]

Table: Aggregation of the Healthcare Expenditures of the colony of Madagascar 1907-1925

Year	Hygiène et Assistance		Healthcare Expenditures
	Rubric	Items	
1907	Ch.19	Art.1+2+3+4	∑ Articles
1908	Ch.18	Art.1+2+3+4	∑ Articles
1909 - 1911	Ch.17	Art.1+2+3+4	∑ Articles
1912	Ch.17	Art.1+2+3+4+5+6	∑ Articles
1913	Ch.18	Art.1+2+3+4+5+6	∑ Articles
1919	Ch.11 + Ch.12	Art(1) + Art(1)	∑ Articles
1920 - 1925	Ch.11 + Ch.12	Art.(1) + Art.(1)	∑ Articles

Source : Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de Madagascar et dépendances. Bibliothèque nationale de France. Gallica digital library. www.bnf.fr

Notes: From 1919, the rubric “Hygiène et Assistance” was recorded under the rubric of “Service d’intérêt social et économique (Personnel et matériel)”.

Hygiènes et Assistance (Healthcare Expenditures) 1919 = [Service d’intérêt social et économique ; personnel (Personnel de l’assistance) + Service d’intérêt social et économique ; matériel (Assistance)]

Service de l’enseignement (Education Expenditures) = [Service de l’enseignement (Personnel + Matériel + École professionnelle + École de médecine + École de sages-femmes + Dépenses des exercices clos)]

Table: Aggregation of the Education Expenditures of the colony of Madagascar 1907-1925

Year	Service de l’enseignement		Education Expenditures
	Rubric	Items	
1907	Cha.17	Art.1+2+3+4+5+6	∑ Articles
1908	Cha.16	Art.1+2+3+4+5+6+7	∑ Articles
1909 - 1911	Cha.15	Art.1+2+3+4+5+6+7+8	∑ Articles
1912	Cha.15	Art.1+2+3+4+5+6+7+8	∑ Articles
1913	Cha.22	Art.1+2+3+4+5+6+7+8	∑ Articles
1919	Cha.11 + Ch.12	Art.(2) + Art.(2)	∑ Articles
1920 - 1925	Cha.11 + Ch.12	Art.(2) + Art.(2)	∑ Articles

Source : Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de Madagascar et dépendances. Bibliothèque nationale de France. Gallica digital library. www.bnf.fr

Notes: From 1919, the rubric “Hygiène et Assistance” was recorded under the heading “Service d’intérêt social et économique (Personnel et matériel)”. Service d’intérêt social et économique (Education Expenditures) 1919 = [Service d’intérêt social et économique : personnel (service de l’enseignement) + Service d’intérêt social et économique : matériel (services de l’enseignement)]

Service judiciaire (Justice Expenditures) = [Service judiciaire (Personnel + Indemnités et crédits divers + Matériel + frais de justice + Dépenses des exercices clos)]. → **From 1919**, Service d’administration générale (Justice Expenditures) 1919 = [Personnel du Service d’administration générale (Justice) + Matériel du Service d’administration générale (Justice)]

Table: Aggregation of the Justice Expenditures of the colony of Madagascar 1907-1925

Year	Service judiciaires / Service d'administration générale		Justice Expenditures
	Rubric	Items	
1907 - 1909	Ch.8	Articles.1+2+3+4+5	∑ Articles
1910 - 1911	Ch.8	Articles. 1+2+3+4+5+6	∑ Articles
1912	Ch.9	Articles. 1+2+3+4+5+6	∑ Articles
1913	Ch.4	Articles. 1+2+3+4+5+6	∑ Articles
1919	Ch.4 + Ch.5	Articles. (6) + (3)	∑ Articles
1920 -1923	Ch.4 + Ch.5	Article.(6) + Article.(5)	∑ Articles
1925	Ch.4 + Ch.5	Article.(9) + Article.(8)	

Source : Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de Madagascar et dépendances. Bibliothèque nationale de France. Gallica digital library. www.bnf.fr

Note: From 1919, the rubric service judiciaire was recorded under the rubric “service d’administration judiciaire (personnel et matériel)”. The denotation under the latter is : Justice

The following table shows subsidies for the period 1907-1925. Note that I have excluded all subsidies and reserve funds for the respective years from the colony's total revenues.

Table: Subsidies and Loans(“Emprunts”), received, and Revenue collected from the Reserve Funds of the colony of Madagascar and dependences.

Year	Subsidies (“Subventions”)	Reserve funds (“Fonds de la caisse de reserve”)	Loan/ Revenue from Loan (“Emprunts”) et Produits des emprunts	Revenue du budget annexe des Chemins de fer	Revenue du budget annexe de la santé
1907		400	4399720,98	945943,31	
1908			4763513,11	1047451,78	
1909			1917367,23	1408946,33	
1910			1219930,81	1602858,70	1713988,46
1911			296294,50	1830514,35	2129145,23
1912			90393,49 + 1334567,94+4589,11	1967057,75	1702897,29
1913		2191820,18+116850	219615,68+39234,19	2930171,93	2485849,31
1919		4417200		5079000	2386733,40
1920				8319978,36	5135446,14
1921	-	-	-	-	-
1922		7995714,72		9557902,69	7353935,22
1923				12430131,97	8923186,65
1924					
1925		8469322,09		22537707,12	10641895,12

Source : Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de Madagascar et dépendances. Bibliothèque Nationale de France. Gallica digital library. www.bnf.fr

The colony of Mauritania

Mauritania is a former French colony that was part of the Federation of French West Africa (AOF). Initial peaceful incursions into the area quickly turned into armed conquest due to the strong resistance staged by the northern and central tribes of the country. The colony of Mauritania was initially a military territory before becoming a civilian territory in 1904 and a colony in 1920. Nevertheless, resistance continued, and it was not until 1934 that complete pacification was achieved. After receiving overseas territory status in 1946, the country became an autonomous colony through “la Loi cadre” and gained full independence from the French in 1960.

I obtained the data of the Mauritanian colony from the (CDRD) for the years 1907 to 1925. I excluded the revenue from the “Zekkat”²³ in the computation of the capitation tax, because the reasons and criteria for such taxation are different from those of the capitation tax. I provide an overview of the “Zekkat” levied by the colony from 1900 to 1914. There was no revenue recorded for indirect taxation in the 1913 in BSL or CDRD of the colony which I do not view as missing data because no revenue was raised through the latter.

Table: Value of Zekkat levied on natives between 1905-1915 in the colony of Mauritania

Year	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914
Zekkat	136282,5	137647,5	196173,7	251266,8	375021,8	417569,1	453049,2	456060,2	545122,5	553576,4
t	4	9	8	3	9	0	4	6	5	5

Source : Développement des Recettes 1907 - 1925. Compte définitif des recettes et des dépenses de la colonie de la Mauritanie. Bibliothèque Nationale de France. Gallica digital library Bibliothèque Nationale.

In the following years, listed in the table below, Mauritania's public finance report show that police expenditure also includes the expenditure of the "Méharistes" and "Tirailleurs" units, which I have not included in the final calculation of police expenditure. This data can be found under "Garde indigènes" or “Brigades indigènes”

Table: Expenditures on Méharistes and Tirailleurs in the colony of Mauritania 1908-1913

Years	1908	1909	1910	1911	1913
Méharistes	136076,75	103454,90			
Tirailleurs	35056,25	14326,50			
Combined .Personnel & materials			138576,86	218157,39	174701,15

Source : Développement des Recettes 1907 - 1925. Compte définitif des recettes et des dépenses de la colonie de la Mauritanie. Bibliothèque nationale de France. Gallica digital library Bibliothèque nationale.

Total Net revenue = Direct Taxes (Contributions Directes) + **Indirect Taxes** (Contributions Indirectes) + **Other Taxes** (Autres Contributions / Produits Divers + Recettes Extraordinaires).

²³ The "zekkat" is an Islamic obligation that provides for the payment of a certain percentage of one's wealth (money or material) to the poor or to an Islamic institution (e.g., mosque). The percentage to be paid is calculated either at a predetermined rate on the person's income or on all material assets, etc.

From 1919 Total Net Revenue = Direct taxes (Contributions sur Rôles) + Indirect Taxes (Produits des exploitations industrielles + Droit d'enregistrement + Timbre) + Other revenues (Domaines + Forêts + Produits percus sur ordre de recettes²⁴ + recettes extraordinaires) Or **Total Net Revenue** = Total Revenue – Subvention – Fonds de réserve

Table: Aggregation of the Revenue of the colony of Mauritania 1907-1925

Year	Recettes Ordinaires				Autres Contributions				Total Net Revenue
	Contributions directes (CD)		Contributions Indirectes CI)		Produits divers des Contributions ordinaires		Produits des recettes extraordinaires		
	Titre/Chapter	Article	Titre/Chapter	Article	Titre/Chapter	Article	Titre/Chapter	Article	
1907	1	1	1	2	1	3	3	1	Σ CD, CI, OT
1908	1	1	1	2	1	3	-	-	Σ CD, CI, OT
1909	1	1	1	2	1+2	3+ 1(1+2+3)*	3	1	Σ CD, CI, OT
1910	1	1	1	2	1+2	3+(1+2+3)	3	1	Σ CD, CI, OT
1911	1	1	1	2	1+2	3+(1+2)	-	-	Σ CD, CI, OT
1912 — 1913	1	1	1	2	1	3	-	-	Σ CD, CI, OT
1919 - 1924	1	1+2+3+4	3+2	(1+2+3+4)+ (1+2)	2+4+6	(3+4)+ (2+3+4+5)+ (1)	-	-	Σ CD, CI, OT
1925	1	1+2+3+4	3+2	(1+2+3+4)+ (1+2)	2+4+6	(3+4)+ (2+3+4+5)+ (1)	8	1*	Σ CD, CI, OT

Source : Développement des Recettes 1907 - 1925. Compte définitif des recettes et des dépenses de la colonie de la Mauritanie. Bibliothèque nationale de France. Gallica digital library Bibliothèque nationale.

Note: 1(1+2+3)* = Titre II, Recettes d'ordre, Article 1, Paragraphe 1,2 and 3. The Sum of Paragraph 3 = Recette d'ordre. 1* = Item / Paragraphe 1

Police and prison Expenditures = Force de police (Personnel + Habillement et Équipement + Armement et Munitions) → 1907 = [Ch. VII (Art.1+2+3)]. From 1919, **Police and Prison Expenditures** = **Personnel** (Police administrative et judiciaire +Etablissement pénitentiaires +Gendarmerie Coloniale + Gardes de cercles) + **Matériel** (Police administrative et judiciaire +Etablissement pénitentiaires +Gendarmerie Coloniale + Gardes de cercles)

Table: Aggregation of the Police and Prison Expenditures of the colony of Mauritania 1907-1925

	Force de Polices		Polices and prisons Expenditures
	Rubric	Items	
1907	Ch.7	Art.1+2+3	Σ Articles
1908	Ch.7 + 8	Art.1 + Art.1+2+3	Σ Articles
1909 – 1912	Ch.8 + 9	Art.(1+2+3+4) + Art.(1+2+3+4)	Σ Articles
1913	Ch.7+8+9+10	Art.(1+2+3+4+5) + Art.(1+2+3+4+5) + Art.(1+2+4) + Art.(1+2+3+4+5+6)	Σ Articles
1919 – 1920	Ch.4+5	Art.(6+7+9+10) + Art.(5+6+8+9)	Σ Articles

Source : Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de la Colonie de la Mauritanie. Bibliothèque nationale de France. Gallica digital library. www.bnf.fr

²⁴ I excluded from « Produits percus sur ordre de recettes » all the subsidies ("Subventions")

Public Works = [Travaux publics (Personnel + Matériel)] → 1907 = [Ch. XI (Art.1+2)]. From 1919, **Public Works** = [Dépenses des exploitations industrielles (Personnel Travaux public) + Dépenses des exploitations industrielles (Matériel Travaux publics)]

Table: Aggregation of the Public Works Expenditures of the colony of Mauritania 1907-1925

Year	Travaux Publics		Public Works Expenditures
	Rubric	Items	
1907	Ch. 11	Art.1 + 2	∑ Articles
1908	Ch.12	Art.1 + 2	∑ Articles
1909	Ch.13	Art.1 + 2	∑ Articles
1910	Ch.13	Art.1 + 2+3	∑ Articles
1911 – 1912	Ch.13	Art.1 + 2	∑ Articles
1913	Ch.17	Art.1 + 2+3	∑ Articles
1919 – 1925	Ch.8+9+10+11	Art.(6)+Art.(6)+Art.(6)+Art.(1+2+3+4)	∑ Articles

Source : Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de la Colonie de la Mauritanie. Bibliothèque nationale de France. Gallica digital Library. www.bnf.fr

Healthcare Expenditures = [Service Médical (Personnel +Matériel)] → 1907 = [Chap. X(Art.1 + Art.2)]

From 1919, **Healthcare Expenditures** = [**Personnel** des Services d'intérêts social et économique (Services de santé + Hôpitaux, ambulances, infirmeries + Service sanitaire + Hygiène publique + Assistance indigène) + **Matériel** des Services d'intérêts social et économique (Services de santé + Hôpitaux, ambulances, infirmeries + Service sanitaire + Hygiène publique + Assistance publique + Assistance médicale indigène)]

Table: Aggregation of the Healthcare expenditures of the colony of Mauritania 1907-1925

Year	Service Médical		Healthcare Expenditures
	Rubric	Items	
1907	Ch.10	Art.1 + 2	∑ Articles
1908	Ch.11	Art.1 + 2 + 3	∑ Articles
1909 – 1910	Ch.12	Art.1 + 2 + 3+4	∑ Articles
1911 – 1912	Ch.12	Art.1 + 2 + 3+4+5	∑ Articles
1913	Ch.18	Art.1 + 2 + 3+4	∑ Articles
1919 – 1925	Ch.12+13	Art.(1+2+3+4+5)+Art.(1+2+3+4+5+6)	∑ Articles

Source : Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de la Colonie de la Mauritanie. Bibliothèque nationale de France. Gallica digital library. www.bnf.fr

Education Expenditures = [École Indigène (Personnel + Matériel)] → 1907 = [Chap. VI (Art.2)]

From 1919, **Education Expenditures** = [**Personnel** des Services d'intérêt social et économique (Instruction publique + Bibliothèques et Musées + Enseignement technique et professionnel) + **Matériel** des Services d'intérêt social et économique (Instruction publique + Bibliothèques et Musées + Enseignement technique et professionnel)]

Table: Aggregation of the Education Expenditures of the colony of Mauritania 1907-1925

Year	École Indigène		Education Expenditures
	Rubric	Items	
1907 – 1909	Ch.6	Art.2	∑ Articles
1910 – 1912	Ch.6	Art.1	∑ Articles
1913	Ch.19	Art.1+2+3	∑ Articles
1919 – 1925	Ch.12+13	Art.(6+7+8)+Art.(7+8+9)	∑ Articles

Source : Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de la Colonie de la Mauritanie. Bibliothèque nationale de France. Gallica digital library. www.bnf.fr

Justice Expenditures = [Justice Indigène (Cadis Supérieures + Cadis ordinaires / Sum of Paragraph 3 and 6)] → 1907 = [Ch. VI (Art.1)

From 1919, **Justice Expenditures** = Justice Indigène (personnel + Matériel)

Table: Aggregation of the justice expenditure of the colony of Mauritania 1907-1925

Year	Justice Indigène		Justice Expenditures
	Rubric	Items	
1907 – 1909	Ch.6	Art.1	∑ Articles
1910	Ch.3	Art.5	∑ Articles
1911 – 1912	Ch.3	Art.4	∑ Articles
1913	Ch.6	Art.1+2	∑ Articles
1919 – 1925	Ch.4+5	Art.(5) + Art.(4)	∑ Articles

Source : Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de la Colonie de la Mauritanie. Bibliothèque Nationale de France. Gallica digital library. www.bnf.fr

The following table shows subsidies for the period 1900-1915. Note that I have excluded all subsidies and reserve funds for the respective years from the colony's total revenues.

Table: Subsidies and Loans(“Emprunts”), received, and Revenue collected from the reserve fund of the colony of Mauritania

Year	Subsidies (“Subventions”)	Reserve Funds (“Fonds de la caisse de reserve”)	Loans (“Emprunts”)	Revenue du budget annexe des Chemins de fer	Revenue du budget annexe de la santé
1907	1082753,21	-			
1908	800000	-			
1909	962000	-			
1910	896000	-			
1911	800000	-			
1912	838000	-			
1913	921000	-			
1919	897821	-			
1920	999157,79	-			
1921	1739800	-			
1922	2459800	-			
1923	2260000	-			
1924	2345000	-			
1925	2963407,8*	404267,42			

Source : Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de la Colonie de la Mauritanie. Bibliothèque nationale de France. Gallica digital library. www.bnf.fr

Note: Subventions + Fonds de concours = 2495000+101027,32+367380,48

The colony of Côte d'Ivoire

The colony of Ivory Coast, commonly known by its French name “Côte d'Ivoire”, was an autonomous colony of the Federation of French West Africa from its creation in 1893 until its independence in 1960. The colonial invasion was met with fierce resistance from “Almamy” Samori Touré, whose empire stretched from Côte d'Ivoire through Guinea Conakry and Mali to Burkina Faso. Despite an 18-year intense struggle against French colonial rule, Samori was captured in September 1898 and exiled to Gabon, where he died in June 1900. I have compiled the colony's data from the BSL from 1907 to 1913, as the CDRD was not available for the period.

Total Net revenue = Direct Taxes (Contributions Directes) + **Indirect Taxes** (Contributions Indirectes) + **Other Taxes*** (Produits Divers excluding Subvention) + (Recettes d'ordre + Recettes Extraordinaires). Or **Total Net Revenue = Total Revenue – Subvention – Fonds de réserves.**

From 1919 Total Net Revenue = Direct taxes (Contributions sur Rôles) + **Indirect Taxes** (Produits des exploitations industrielles + Droit d'enregistrement + Timbre) + **Other revenues** (Domaines + Forêts + Produits percus sur ordre de recettes²⁵ + recettes extraordinaires)

Table: Aggregation of the Revenue of the colony of Côte D'ivoire 1907-1925

Table 1: Aggregation of the Revenue of the colony of Côte D'Ivoire 1907-1925

Year	Recettes Ordinaires						Autres Contributions						Total Net Revenue
	Contributions directes (CD)			Contributions Indirectes CI)			Produits divers des Contributions ordinaires			Produits des recettes extraordinaires			
	Titre	Chap.	Article	Titre	Chap.	Article	Titre	Chap.	Article	Titre	Chap.	Article	
1907 - 1908	1	-	1	1	-	2	1	-	3*	-	-	-	Σ CD,CI, OT
1909 - 1913	1	-	1	1	-	2	1	-	3	-	-	-	Σ CD,CI, OT
1919 - 1925	-	1	1	-	2+3	(1+2)+ (1+2+3+4+5)	-	4+6	(2+3+4+5)+ (1)	-	-	-	Σ CD,CI, OT

Source: Développement des Recettes 1907 - 1925. Compte définitif des recettes et des dépenses de la colonie de la Côte d'Ivoire. Bibliothèque nationale de France. Gallica digital library Bibliothèque nationale.

Note: 3* = Total of Article 3 excluding the “Subventions” (Subsidies) Item.

Police and prison Expenditures = Police et Prison [Police (Personnel + Matériel) + Prison (personnel + Matériel)] → 1907 = [Ch. X (Art.1+2+)]

²⁵ I excluded from « Produits percus sur ordre de recettes » all the subsidies (“Subventions”)

From 1919 Police and prison Expenditures = Service d'administration (Personnel + Matériel)

Table: Aggregation of the Police and Prison Expenditures of the colony of Côte D'ivoire 1907-1925

Year	Police and Prison personnel		Police and Prison matériel		Police and Prison Expenditures
	Rubrics	Items	Rubrics	Items	
1907	Ch.10	Art.1	Ch.10	2	∑ Articles
1908	Ch.11	Art.1+2	Ch.12	Art.1+2	∑ Articles
1909 -1910	Ch.13	Art.1+2	Ch.14	Art.1+2+3	∑ Articles
1911	Ch.13	Art.1+2+3+4	Ch.14	Art.1+2+3	∑ Articles
1912	Ch.13	Art.1+.....6	Ch.14	Art.1+2+3	∑ Articles
1913	Ch.7	Art.1+2+3+4	Ch.8	Art.1+2+3	∑ Articles
1919	Ch.4	Art.6+10+11(10)*	Ch.5	Art.6 + 9+10(9)*	∑ Articles
1920	Ch.4	Art.6+9+10	Ch.5	(Art.6+9)+10(6)*	∑ Articles
1921	Ch.4	Art.6+9+10	Ch.5	(Art.6+9)+10(6+9)*	∑ Articles
1923 -1925	Ch.4	Art.6+10	Ch.5	(Art.6+9)+10(6+9)*	∑ Articles

Source : Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de la Colonie de la Côte d'Ivoire. Bibliothèque Nationale de France. Gallica digital library. www.bnf.fr

Note: 11(10)* = Items 10 of Article 11; 10(9)* = Items 9 of Article 10; 10(6)* = Items 6 of Article 10; 10(6+9)*= Items 6 and 9 of Article 10.

I have deducted the respective costs of 55570 fr and 2073.90 fr for 1912 and 1913 from the police expenditures as they were spent on the "détachement mobile" and the "tirailleurs".

Public Works Expenditures = [Personnel des Travaux publics et Mines (Personnel des Travaux publics) + Matériel des travaux publics et des Mines – Travaux neuf et Entretien (Matériel des travaux publics et des Mines + Travaux d'entretien + Travaux neufs + Construction de route)] → 1907 = [Ch. XII (Art.1) + Ch. XIII (Art.1+2+3+4)]

Table: Aggregation of Public Works Expenditures of the colony of Côte D'ivoire 1907-1913

Year	Personnel des Travaux publics et Mines		Matériel des travaux publics et des Mines – Travaux neuf et Entretien		Public Works Expenditures
	Rubrics	Items	Rubrics	Items	
1907	Ch.12	Art.1	Ch.13	Art.1+2+3+4	∑ Articles
1908	Ch.16	Art.1	Ch.17	Art.1+2+3+4+5	∑ Articles
1909 -1911	Ch.19	Art.1+2	Ch.20	Art.1+.....6	∑ Articles
1912	Ch.19	Art.1+2	Ch.20	Art.1+.....7	∑ Articles
1913	Ch.22	Art.1+.....6	Ch.23	Art.1+.....9	∑ Articles

Source : Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de la Colonie de la Côte d'Ivoire. Bibliothèque nationale de France. Gallica digital library. www.bnf.fr

From 1919 Public Work Expenditures = Produits des exploitations industrielles (personnel +dépenses des exercices clos) + Produits des exploitations industrielles (Main-d'œuvre +dépenses des exercices clos) + Produits des exploitations industrielles (Matériel +dépenses des exercices clos) + Travaux publics (Entretien, Neufes et réparations)

Table: Aggregation of Public Works Expenditure of the colony of Côte D’Ivoire 1919-1925

Year	Produits des exploitations industrielles personnel		Produits des exploitations industrielles Main-d'œuvre		Produits des exploitations industrielles Matériel		Travaux publics (Entretiens, Neuves et Réparations)		Public Works Expenditures
	Rubrics	Articles	Rubrics	Articles	Rubrics	Articles	Rubrics	Articles	
1919 – 1923	Ch.8	6+ 12(6)*	Ch.9	6+ 12(6)*	Ch.10	6+ 12(6)*	Ch.11	1+.....5	∑ Articles
1924 - 1925	Ch.8	6+ 12(6)*	Ch.9	6+ 12(6)*	Ch.10	6+ 12(6)*	Ch.11	1+.....6	∑ Articles

Source : Développement des Dépenses 1907-1925. Compte définitif des recettes et des dépenses de la Colonie de la Côte d’Ivoire. Bibliothèque nationale de France. Gallica digital library. www.bnf.fr

12(6)* = Items 6 of article 12

The heading “Personnels and Matériels des Travaux Publics”²⁶ were conflated with expenditures related to mining, as shown in the table below. No distinction is made in the denotation of public works expenditures and mining expenditures. Since I was not able to distinguish the share of the two items, I treated the entire figure as public works expenditures.

Healthcare Expenditures = Service sanitaire (Personnel + Matériel) → 1907 = [Ch. XI (Art.1+2)]

From 1919 Healthcare Expenditures = Service d’intérêt Social et Économique (Personnel + Matériel)

Table: Aggregation of Public Works Expenditures of the colony of Côte D’Ivoire 1907-1925

Year	Service sanitaire personnel / <i>Service d’intérêt Social et Économique (Personnel)</i>		Service sanitaire matériel / <i>Service d’intérêt Social et Économique (Matériel)</i>		Healthcare Expenditures
	Rubrics	Items	Rubrics	Items	
1907	Ch.11	Art.1+2			∑ Articles
1908	Ch.14	Art.1+2+3+4+5	Ch.15	Art.1	∑ Articles
1909 -1910	Ch.17	Art.1+2	Ch.18	Art.1+2	∑ Articles
1911	Ch.17	Art.1+.....7	Ch.18	Art.1+2+3+4+5	∑ Articles
1912	Ch.17	Art.1+.....6	Ch.18	Art.1+2+3+4+5	∑ Articles
1913	Ch.27	Art.1+.....10	Ch.28	Art.1+.....6	∑ Articles
1919-1925	Ch.12	(Art.1+2+3+4)+ 10(1+2)*	Ch.13	(Art.1+.....6)+ 10(2)*	∑ Articles

Source : Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de la Colonie de la Côte d’Ivoire. Bibliothèque Nationale de France. Gallica digital library. www.bnf.fr

10(1+2)*= Items 1 and 2 of Article 10; **(2)*** = Items number 1 and 2 of Article 10; **10(2)***= Items number 2 of Article 10

In 1913, in contrast to previous years, the health expenditure heading (“Assistance médicale/Sanitaire”) was designated "Assistance public."

²⁶ “Personnels and Matériels des Travaux Publics”: refers to all personnel and material expenditures.

Education Expenditures = Instruction publique (Personnel + Matériel) → 1907 = [Ch. VII (Art.1)*]

From 1919 Education Expenditures = Service d'intérêt Social et Économique (Personnel + Matériel)

Table: Aggregation of Education Expenditures of the colony of Côte D'ivoire 1907-1925

Year	Instruction publique personnel / <i>Service d'intérêt Social et Économique (Personnel)</i>		Instruction publique matériel / <i>Service d'intérêt Social et Économique (Matériel)</i>		Education Expenditures
	Rubrics	Items	Rubrics	Items	
1907-1908	Ch.7	Art.2	Ch.7	Art.2	Σ Articles
1909 -1910	Ch.8	Art.1+2	Ch.9	Art.1+2	Σ Articles
1911- 1912	Ch.8	Art.1+2+3	Ch.9	Art.1+2+3	Σ Articles
1913	Ch.29	Art.1+2+3	Ch.30	Art.1+2+3	Σ Articles
1919-1925	Ch.12	(Art.6+7+8)+(6)*	Ch.13	(Art.7+8+9)+(7)*	Σ Articles

Source: Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de la Colonie de la Côte d'Ivoire. Bibliothèque nationale de France. Gallica digital library. www.bnf.fr

Note: (6) *=Items 6 of Article 10; (7) * = Items number 7 of Article 10.

I added to the total education expenditures all the charges incurred for "L'école pratique pour l'amélioration des procédés de fabrication de caoutchouc"²⁷ as indicated in the table below

Additional table of education expenditures (same source as above)

Years	1907	1908
Ecole pratique	7600	18400

Source: Développement des Dépenses 1907 - 1908. Compte définitif des recettes et des dépenses de la Colonie de la Côte d'Ivoire. Bibliothèque nationale de France. Gallica digital library. www.bnf.fr

Justice Expenditures = Justice Indigène (Organisation de la justice indigène + Frais de déplacement des juges indigènes+ Fourniture de bureau pour l'organisation de la justice)
→1907 = [Ch. VII (Art.1)*] . From 1919, **Justice Expenditures** = Service d'administration générale (Personnel + Matériel)

Table: Aggregation of Justice Expenditures of the colony of Côte D'ivoire 1907-1925

Year	Justice Indigène (Personnel) / <i>Service d'administration générale (personnel)</i>		Justice Indigène (Matériel) / <i>Service d'administration générale (Matériel)</i>		Justice Expenditures
	Rubrics	Items	Rubrics	Items	
1907-1908	Ch.7	Art.1	-	-	Σ Articles
1909	-	-	-	-	-
1910	Ch.4	Art.3	-	-	Σ Articles
1911	Ch.4	Art.6	-	-	Σ Articles
1912 -1925	Ch.4	Art.5	Ch.5	Art.4	Σ Articles

Source : Développement des Dépenses 1907-1925. Compte définitif des recettes et des dépenses de la Colonie de la Côte d'Ivoire. Bibliothèque Nationale de France. Gallica digital library. www.bnf.fr

²⁷L'école Pratique: refer to a Practical School for the Improvement of Rubber Manufacturing Processes.

I have excluded from the total revenue of the colony all receipts from the reserve funds and all subsidies granted by the colonial government for each period, as shown in the table below.

Table: Subsidies and Loans(“Emprunts”), received, and Revenue collected from the reserve fund of the colony of Côte d’Ivoire

Year	Subsidies (“Subventions et fonds de concours”)	Reserve funds (“Fonds de la caisse de reserve”)	Loans (“Emprunts”)	Revenue du budget annexe des Chemins de fer	Revenue du budget annexe de la santé
1907	1200000	-			
1908	1250000	-			
1909	1200000	-			
1910	110000	-			
1911	2000000	-			
1912	1900000	-			
1913	1900000	625940			
1919	502000*	503622			
1920	-	1500000			
1921	1899000*	300000			
1922	-	833000			
1923	-	1000000			
1924	-	500000			
1925	-	3000000			

Source : Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de la Colonie de la Côte d’Ivoire. Bibliothèque Nationale de France. Gallica digital library. www.bnf.fr

502000* = Include 35000 fr + 60000 of “Fonds de concours” “ granted by the federal government; 1899000* = “Fonds de concours” granted by the federal government.

The colony of Senegal

The colony of Senegal is the oldest colonial territory of the French in sub-Saharan Africa. After bloody battles with other imperial powers and a protracted conquest orchestrated by General Louis Faidherbe, Senegal officially became a French colony in 1895 and an integral part of the French West Africa Colonial Federation. As a result of the decree of October 18, 1904, the colony of Senegal was divided into 2 territories: "territoires d'administration direct" (TA - territories with direct administration) and "territoires des pays de protectorat" (TPP - territories of the protectorate states). The former, which enjoyed more privileges than the latter, was composed of 4 communes (constituencies): Saint-Louis, Dakar, Rufisque and the island of Gorée. However, it is striking that among the constituencies created by the Senegalese colonial government, there was no territory that symbolized power in pre-colonial times. I obtain the data for the colony of Senegal from the CDRD and BSL. The data cover the period from 1907 to 1925.

Total Net revenue = Direct Taxes (Contributions Directes) + **Indirect Taxes** (Contributions Indirectes) + **Other Taxes*** (Produits Divers excluding Subvention) + (Recettes d'ordre + Recettes Extraordinaires). Or **Total Net Revenue** = Total Revenue – Subvention – Fonds de réserves.

From 1919 Total Net Revenue = Direct taxes (Contributions sur Rôles) + Indirect Taxes (Produits des exploitations industrielles + Droit d'enregistrement + Timbre) + Other revenues (Domaines + Forêts + Produits percus sur ordre de recettes²⁸ + recettes extraordinaires)

²⁸ I excluded from « Produits percus sur ordre de recettes » all the subsidies ("Subventions")

Table: Aggregation of the Revenue of the colony of Senegal 1907-1925

Year	Recettes Ordinaires						Autres Contributions					Total Net Revenue
	Contributions directes (CD)			Contributions Indirectes (CI)			Produits divers des Contributions ordinaires			Recettes extraordinaires		
	Titre	Chap.	Article	Titre	Chap.	Article	Titre	Chap.	Article	Chap.	Article	
1907	1p	1d	1p+1d	-	1d	2d(1+2)	1p	1d	2p+2d(3+...11)+ 3d+4d	-	-	Σ CD, CI, OT
1908	1d+1p		1d+1p	1d+1p	-	2d(1+2+3)+ 2p(1)	1d+1p	-	2d(4+5)+ 3d+4d(1)+ 2p(2+...6)	-	-	Σ CD, CI, OT
1909- 1910	1d+1p		1d+1p	1d+1p	-	2d+3d(1)+2p	1d+1p	-	3d(2+...5)+ 4d(1+2)+3p	-	-	Σ CD, CI, OT
1911	1d+1p	-	1d+1p	1d	-	2d+3d(1)	1d+2d+1p		3d(2+...5)+ 4d(1+2)+(2)* +4p			Σ CD, CI, OT
1912	1d+1p	-	1d+1p	1d	-	2d	1d+2d+1p		3d+4d(1)+ 5d+(2)*+4p			Σ CD, CI, OT
1913	1d+1p	-	1d+1p	1d+1p		2d+2p	1d+1p+2p		3d+4d(1)+ 5d+1p+(1)**			Σ CD, CI, OT
1919	-	1d+1p	(1+...4)d+ (1+...4)p		2d+d3+ 2p+3p	(1+2)d+(1+2)d +(1+2)p+(1+...4)p		2d+4d+d6+ 2p+4p+6p	3d+(2+...4)d+(1)* +(3+4)p+(2+...5) + (1)**			Σ CD, CI, OT
1920		1d+1p	(1+...4)d+ (1+...4)p		2d+d3+ 2p+3p	(2+3)d+(1+2)d +(2+3)p+(1+...4)p		2d+4d+d6 +2p+4p+6p	4d+(2+...4)d+(1)* +(4+5)p+(2+...5)p + (1)**	8d	(2)*	Σ CD, CI, OT
1921		1	1+...4		2+3	(2+3)+(1+...4)		2+4+6	(4+5)+(2+...5)+(1)*	8	(5)*	Σ CD, CI, OT
1922		1	1+...4		2+3	(1+2)+(1+...4)		2+4+6	(4+5)+(2+...5)+(1)*	8	(3a)*	Σ CD, CI, OT
1923		1	1+...4		2+3	(1+2)+(1+...4)		2+4+6	(3+4)+(2+...5)+(1)*	8	(3a)*	Σ CD, CI, OT
1924		1	1+...4		2+3	(1+2)+(1+...4)		2+4+6	(3+4)+(2+...5)+(1)*	8	(1)***	Σ CD, CI, OT

Source : Développement des Dépenses 1907-1924. Compte définitif des recettes et des dépenses et Budget du service locale de la Colonie du Sénégal (Territoires d'administration directe et des pays de protectorats. Bibliothèque Nationale de France. Gallica digital library. www.bnf.fr

Note: (2)* = Item 2 of Titre II of TA; (1)** = Item 1 of Titre II of TPP; (1)* = Item 1 of Chap VI of TA; (1)** = Item 1 of Chap VI of TPP; (2)* = Item 2 of Chap VIII of TA; (5)* = Item 5 of Chap VIII of the colony CDRD; (3a)* = Item 3a of Chap VIII of the colony CDRD; ; (1)*** = Item 1 of Chap VIII of the colony CDRD. TA = Territoire d'administration direct; TPP = Territoire des pays de protectorat.

The colony's total revenues in 1907, 1908, and 1909 were calculated using data from the CDRD of the directly administered territories and the BSL of the territories of the protectorate states for the respective years, since the corresponding CDRD of the protectorate states was not available. In 1909, 846.88 fr was deducted from the total revenue of the directly administered territories due to a double imputation. I found in the CDRD of 1910 and 1911 the revenue related to indirect taxes of the protectorate states.

From 1907 to 1913, the heading of indirect taxes was not indicated as such in the CDRD of both territories, or in some cases it was combined with the rubric “diverse produits” (miscellaneous taxes). (see the years 1907 and 1908 for the territories of direct administrations) and (see the years 1907, 1908, 1910, 1911, 1912, and 1913 for the territories of protectorate states). In view of the discrepancies, I treat as miscellaneous receipts in my data set all indirect receipts not derived directly from customs and excise duties, VAT, or taxes on sales.

Police and prison Expenditures = Police et Prison [**Police** (Personnel + Matériel) + **Prison** (personnel + Matériel)] → 1907 = [Ch. XIII (Art.7)d+ Ch. VIII (1+2)p + Ch. XIII (Art.8)d+ Ch. VIII (2)p]. From 1919, **Police and prison Expenditures** = Service d'administration (Personnel + Matériel)

Table: Aggregation of the Police Expenditures of the colony of Senegal 1907-1924

Year	Police and Prison personnel / Service d'administration (Personnel)		Police and Prison matériel / Service d'administration (Matériel)		Police and Prison Expenditures
	Rubrics	Items	Rubrics	Items	
1907	Ch.13d+8p	(Art.7)d+(Art.1+2)p	Ch.13d+8p	(Art.8)d+(Art.2)p	Σ Articles
1908	Ch.11d+10p	(Art.1+2)d+(Art.1)p	Ch.11d+10p	(Art.3+4+5)d+(Art.2+3)p	Σ Articles
1909	Ch.13d+11p	(Art.1+2)d+(1)p	Ch.14d+12p	(Art.1+2)d+(Art.1)	Σ Articles
1910	Ch.13d+9p+ 11p	(Art.1+2+3)d+ (Art.1+2)p+ (Art.1+2)p	Ch.14d+10p+ 12p	(Art.1+2+3)d+ (Art.1+2+3)p+ (Art.1+2)p	Σ Articles
1911	Ch.13d+ 10p+ 12p	(Art.1+2+3)d+ (Art.1+2)p+ (Art.1+2)p	Ch.14d+11p+ 13p	(Art.1+2+3)d+ (Art.1+2)p+ (Art.1+2)p	Σ Articles
1912	Ch.11d+15p	(Art.1+2+3)d+ (Art.1+2+3)p	Ch.12d+16p	(Art.1+2+3)d+ (Art.1+2+3)p	Σ Articles
1913	Ch.4d+9p +11p	(Art.1+...5)d+ (Art.1+...4)p+ (Art.1+2)p	Ch.5d+10p+ 12p	(Art.1+...4)d+ (Art.1+...4)p+ (Art.1+2)p	Σ Articles
1919- 1920	Ch.4d+4p	(Art.6+7+9)d+ (Art.6+7)p	Ch.5d+5p	(Art.5+6+8)d + (Art.5+6+7)p	Σ Articles
1921 - 1924	Ch.4	Art.6+7+9+10	Ch.5	Art.5+6+8+9	Σ Articles

Source : Développement des Dépenses 1907-1924. Compte définitif des recettes et des dépenses et Budget du service locale de la Colonie du Sénégal (Territoires d'administration directe et des pays de protectorats. Bibliothèque nationale de France. Gallica digital library. www.bnf.fr

Public Works Expenditures = [Personnel des Travaux publics (Personnel des Travaux publics) + Matériel des travaux publics et des Mines – Travaux neuf et Entretien (Matériel des travaux publics et des Mines + Travaux d'entretien + Travaux neufs + Construction de route)]
→ 1907 = [Ch.XVI (Art.1+2)d +Ch.X (Art.1)p + (Ch. XVII (Art.1+...6)d +Ch.X (Art.1+3+4)

Table: Aggregation of the Public Works Expenditures of the colony of Senegal 1907-1913

Year	Personnel des Travaux publics		Matériel des travaux publics et-Travaux neuf et Entretien		Public Works Expenditures
	Rubrics	Items	Rubrics	Items	
1907	Ch.16d+10p	(Art.1+2)d+ (Art.1)p	Ch.17d+10p	(Art.1+...6)+ (Art.1+3+4)p	Σ Articles
1908	Ch.14d+12p	(Art.1)d+(Art.1)	Ch.15d+5d+ 13p	(Art.1+...4) d+(Art.1) d+ (Art.1+2+3) p	Σ Articles
1909	Ch.17d+19d+ 15p	(Art.1) d+(Art.1) d + (Art.1) p	Ch.18d+19d+ 16p	(Art.1+...5) d+(Art.2) d + (Art.1+...5) d	Σ Articles
1910	Ch.17d+15p	(Art.1+2) d+ (Art.1+...4) p	Ch.18d+16p	(Art.1+...5) d + (Art.1+...7) p	Σ Articles
1911	Ch.17d+19d+ 16p	(Art.1+2) d+(Art.1) d + (Art.1+...4) p	Ch.18d+19d+ 17p	(Art.1+...5) d+(Art.2+3) d + (Art.1+...11) p	Σ Articles
1912	Ch.15d+19p	(NE)d+(Art.1+...4) p	Ch.16d+20p	(Art.1+...5) d+(Art.2+...10) p	Σ Articles
1913	Ch.24p	(Art.1+...4) p	Ch.11d+14d+25p	(Art.1+...5) d+(Art.1+4) d + (Art.1+...10) p	Σ Articles

Source : Développement des Dépenses 1907-1924. Compte définitif des recettes et des dépenses et Budget du service locale de la Colonie du Sénégal (Territoires d'administration directe et des pays de protectorats. Bibliothèque nationale de France. Gallica digital library. www.bnf.fr

Note : NE = no expenses.

From 1919 Public Work Expenditures = Produits des exploitations industrielles (personnel +dépenses des exercices clos) + Produits des exploitations industrielles (Main-d'œuvre +dépenses des exercices clos) + Produits des exploitations industrielles (Matériel +dépenses des exercices clos) + Travaux publics (Entretiens, Neuves et réparations)

Table: Aggregation of the Public Works Expenditures of the colony of Senegal 1919-1924

Year	Produits des exploitations industrielles personnel		Produits des exploitations industrielles Main-d'œuvre		Produits des exploitations industrielles Matériel		Travaux publics (Entretiens, Neuves et Réparations)		Public Works expenditures
	Rubrics	Articles	Rubrics	Articles	Rubrics	Articles	Rubrics	Articles	
1919 – 1920	Ch.8d+8p	6d+4p	Ch.9d+9p	6d+4p	Ch.10d+10p	6d+4p	Ch.11d++11p	(1+...4)+(1+...4)	Σ Articles
1921 -1924	Ch.8+	Art.4	Ch.9	Art.4	Ch.10	4	Ch.11	1+...4	Σ Articles

Source : Développement des Dépenses 1907 - 1924. Compte définitif des recettes et des dépenses et Budget du service local de la Colonie du Sénégal (Territoires d'administration directe et des pays de protectorats). Bibliothèque nationale de France. Gallica digital library. www.bnf.fr

The heading "Service de l'alimentation des eaux," which was in previous years included under «travaux publique" » (public works), is listed as a separate heading in 1909, 1910, 1911, 1912, and 1913. I have added the corresponding costs to public works expenditures.

Healthcare Expenditures = Service sanitaire (Personnel + Matériel) → 1907 = [Ch. XIV [(Art.1+ ...5) + Ch. XV (1+...6)]d + [Ch. IX (Art.1) + (Art.2)]. From 1919, **Healthcare Expenditures** = Service d'intérêt Social et Économique (Personnel + Matériel)

Table: Aggregation of the Healthcare Expenditures of the colony of Senegal 1919-1924

Year	Service sanitaire personnel / <i>Service d'intérêt Social et Économique (Personnel)</i>		Service sanitaire matériel / <i>Service d'intérêt Social et Économique (Matériel)</i>		Healthcare Expenditures
	Rubrics	Items	Rubrics	Items	
1907	Ch.14d+9p	(Art.1+...5)d+(Art.1)	Ch.15d+9p	(Art.1+...6)d+(Art.2)p	Σ Articles
1908	Ch.12d+11p	(Art.1+...4)d+(Art.1+2)p	Ch.13d+11p	(Art.1+...4)d+(Art.3+4)p	Σ Articles
1909	Ch.16d+13p	(Art.1+2+3)d+(Art.1+2)p	Ch.17d+14p	(Art.1+2+3)d+(Art.1+2)p	Σ Articles
1910	Ch.15d+13p	(Art.1+...4)d+(Art.1+2)p	Ch.16d+14p	(Art.1+...4)d+(Art.1+2+3)p	Σ Articles
1911	Ch.15d+14p	(Art.1+2+3)d+(Art.1+2)p	Ch.16d+15p	(Art.1+...4)d+(Art.1+...4)p	Σ Articles
1912	Ch.13d+17p	(Art.1+...4)d+(Art.1+2)p	Ch.14d+18p	(Art.1+...4)d+(Art.1+...4)p	Σ Articles
1913	Ch.15d+28p	(Art.1+...4)d+(Art.1+2+3)p	Ch.16d+29p	(Art.1+...4)d+(Art.1+2)p	Σ Articles
1919-1920	Ch.12d+12p	(Art.1+...4)d+(Art.1+2+3)p	Ch.13d+13p	(Art.1+...5)d+(Art.1+...6)p	Σ Articles
1921-1924	Ch.12	Art.1+...5	Ch.13	Art.1+...6	Σ Articles

Source : Développement des Dépenses 1907-1924. Compte définitif des recettes et des dépenses et Budget du service locale de la Colonie du Sénégal (Territoires d'administration directe et des pays de protectorats). Bibliothèque nationale de France. Gallica digital library. www.bnf.fr

Education Expenditures = Instruction publique (Personnel + Matériel) → 1907= [Ch. VIII (Art.1+...8) + Ch. VII (Art.1)]d + [Ch. IX (Art.1+...4) +Ch. VII (Art.2)]. From 1919
Education Expenditures = Service d'intérêt Social et Économique (Personnel + Matériel

Table: Aggregation of the Education Expenditures of the colony of Senegal 1919-1924

Year	Instruction publique personnel / <i>Service d'intérêt Social et Économique (Personnel)</i>		Instruction publique matériel / <i>Service d'intérêt Social et Économique (Matériel)</i>		Education Expenditures
	Rubrics	Items	Rubrics	Items	
1907	Ch.8d+7p	(Art.1+...8)d+(Art.1)p	Ch.9d+7p	(Art.1+...4)d+(Art.2)p	Σ Articles
1908	Ch.7p	(Art.1+...4)p	Ch.8d+7p	(Art.1+2)d+(Art.5+6)p	Σ Articles
1909	Ch.8d+8p	(Art.1+2)*d+(Art.1+...5)	Ch.8d+8p	(Art.3+4)d+(Art.6+7)p	Σ Articles
1910	Ch.8d+8p	(Art.1+2+3)*d+(Art.1+...5)p	Ch.8d+8p	(Art.4+5)+(Art.6+7)p	Σ Articles
1911	Ch.8d+8p	(Art.1+2)**d+(Art.1+...5)p	Ch.8d+9p	(Art.3+4+5)d+(Art.1+2+3)p	Σ Articles
1912	Ch.8d+10p	(Art.1+3+4+5)d+(Art.1+...5)p	Ch.8d+11p	(Art.2)d+(Art.1+...4)p	Σ Articles
1913	Ch.17d+30p	(Art.1*+2+3)d+(Art.1+...5)p	Ch.31p	(Art.1+...4)p	Σ Articles
1919-1920	Ch.12d+12p	(Art.6+7)d+(Art.4)p	Ch.13d+13p	(Art.6+7)d+(Art.7)p	Σ Articles
1921-1922	Ch.12	(Art.7+8)	Ch.13	(Art.8+9)	Σ Articles
1923-1924	Ch.12	(Art.7+8)	Ch.13	(Art.7+8)	Σ Articles

Source : Développement des Dépenses 1907 - 1924. Compte définitif des recettes et des dépenses et Budget du service local de la Colonie du Sénégal (Territoires d'administration directe et des pays de protectorats). Bibliothèque nationale de France. Gallica digital library. www.bnf.fr

Note: (Art.1+2) *d = both articles consist of personnel and matériel expenses. The first 4 items of article 1 consist of the personnel expenses and fees paid to the education personnel. The remaining items of the article consist of material cost or education grants. Ipso facto, the 3 first elements of article 2 were personnel wages and the rest of the cost was spent on materials. (Art.1+2+3)*d = The first 4 items of article 1 consist of the personnel expenses and fees paid to the education personnel. The remaining items of the article consist of material cost or education grants. Equally, the 3 first elements of article 2 and the 6 first items of article 3 represent respectively the money spend on the wages of the personnels and the fees received by them; and the remaining items of both articles indicate the cost of material or education grants. (Art.1+2)**d = The first 4 items of article 1 and the first 3 components of article 2 consist of personnel wages and fees paid to the educational personnel and the remaining items consist of the expenses on material. Art.1* = The first 5 items of article 1 consist of personnel wages and fees paid to the educational personnel and the remaining items consist of the expenses on material.

Justice Expenditures = Justice Indigène (Organisation de la justice indigène + Frais de déplacement des juges indigènes+ Fourniture de bureau pour l'organisation de la justice) → 1907 = [Ch. VII (Art.1)*]

From 1919 Justice Expenditures = Service d'administration générale (Personnel + Matériel)

Table: Aggregation of the Justice Expenditures of the colony of Senegal 1919-1924

Year	Justice Indigène (Personnel) / <i>Service d'administration générale (personnel)</i>		Justice Indigène (Matériel) / <i>Service d'administration générale (Matériel)</i>		Justice Expenditures
	Rubrics	Items	Rubrics	Items	
1907	Ch.6p	(Art.1)p	-	-	Σ Articles
1908	Ch.9d+6p	(Art.1)d+(Art.1)p	Ch.9d+6p	(Art.2)d+(Art.2+3)p	Σ Articles
1909 -1911	Ch.9d+7p	(Art.1)d+(Art.1)p	Ch.9d+7p	(Art.2)d+(Art.2)p	Σ Articles
1912	Ch.9d+6p	(Art.1)d+(Art.1)p	Ch.9d+6p	(Art.2)d+(Art.2+3)p	Σ Articles
1913	Ch.3d+8p	(Art.1)d+(Art.1)p	Ch.3d+8p	(Art.2+3)d+(Art.2+3)p	Σ Articles
1919 -1920	Ch.4d+4p	(Art.5)+(Art.5)	Ch.5d+5p	(Art.4)d+(Art.4)p	Σ Articles
1921-1924	Ch.4	Art.5	Ch.5	Art.4	Σ Articles

Source : Développement des Dépenses 1907-1924. Compte définitif des recettes et des dépenses et Budget du service locale de la Colonie du Sénégal (Territoires d'administration directe et des pays de protectorats). Bibliothèque Nationale de France. Gallica digital library. www.bnf.fr

There were no records of judicial expenditures in the financial records of the territories of direct administration in 1907. The only expenditures related to the justice department are listed under the rubric "Dépenses des exercices clos." (See chap. XXI, "rélevé détaillé des dépenses du Chap. XVII" of the "compte définitif").

I have deducted from the total revenues of the colony and its protectorates all subsidies granted by the colonial government and all revenues from reserve funds, as shown in the table below.

Table: Subsidies received, and Revenues collected from the reserve fund of the colony of Senegal (Territoires d'administration directe et des pays de Protectorats)

Year	Subsidies		Reserve funds	
	Administration Directe	Pays de Protectorats	Administration Directe	Pays de Protectorats
1907	970345	970345	152415	-
1908	73000	-	300000	400000
1909	450000	-	353709	50000
1910	500000	-	-	-
1911	700000	-	-	-
1912	1471977	94720	-	-
1913	736000	358000	-	-
1919	755884,41+566696,54	1161380,50+845440,91*	154363,61	-
1920	959001,28	350000*	901193,66	988978,99
1921	Subsidies		Reserve Funds	
1921	3000 + 704559,09*		-	
1922	109000 + 755000*		122279,27	
1923	73000 + 6266,56*		756703,71	
1924	93000 + 41200*		194493,38	

Source : Développement des Dépenses 1907-1924. Compte définitif des recettes et des dépenses et Budget du service locale de la Colonie du Sénégal (Territoires d'administration directe et des pays de protectorats. Bibliothèque nationale de France. Gallica digital library. www.bnf.fr

Note: *= Fonds de concours (are a form of subsidy)

The colony of Niger

The colony of Niger has undergone several changes throughout its history. Since its creation in 1898 as a military territory of Zinder, the territory was first assigned to the short-lived colony of Senegambia and Niger between 1900 and 1903, and later to Upper Senegal and Niger between 1904 and 1911. It then became an autonomous colony in 1922 before gaining full independence in November 1960. I use the CDRD from 1907 to 1913 to calculate the aggregate data of the colony.

Total Net revenue = Direct Taxes (Contributions Directes) + **Indirect Taxes** (Contributions Indirectes) + **Other Taxes*** (Σ Produits Divers - Subvention) Or **Total Net Revenue** = Total Revenue – Subvention – Fonds de réserves.

From 1919 Total Net Revenue = Direct taxes (Σ Contributions sur Rôles) + Indirect Taxes (Σ Produits des exploitations industrielles + Droit d'enregistrement + Timbre) + Other revenues (Σ (Domaines + Forêts + Produits percus sur ordre de recettes²⁹ + recettes extraordinaires))

Table: Aggregation of the Revenue of the colony of Niger 1908 – 1925

Year	Recettes Ordinaires						Autres Contributions						Total Net Revenue
	Contributions directes (CD)			Contributions Indirectes (CI)			Produits divers des Contributions ordinaires			Produits des recettes extraordinaires			
	Titre	Chap.	Article	Titre	Chap.	Article	Titre	Chap.	Article	Titre	Chap.	Article	
1908	1	-	-	2	-		3*	-		-	-	-	Σ Titres
1909 - 1912	1	-	1	1		2	1*	-	3	-	-	-	Σ Articles
1913	1	-	1	1		2	1	-	3				Σ Articles
1919		1	1+2+3		2+3	(2)+ (1+2)	-	2+4+ 6	(3)+ (1+...5)+ (1)	-	-	-	Σ Articles
1920		1	1+2+3		2+3	(1+2)+ (1+2)	-	2+4+ 6	(3)+(1+...5)+ (1)	-	-	-	Σ Articles
1921	-	1	1+2+3	-	2+3	(2)+ (1+2+3)	-	2+4+ 6	(3)+ (2+...5)+ (1)	-	-	-	Σ Articles
1922	-	1	1+2+3	-	2+3	(1+2)+ (1+2+3)	-	2+4+ 6	(3)+ (2+...5)+ (1)	-	-	-	Σ Articles
1923 - 1925	-	1	1+2+3	-	2+3	(2)+ (1+2+3)	-	2+4+ 6	(3)+ (2+...5)+ (1)	-	-	-	Σ Articles

²⁹ I excluded from « Produits percus sur ordre de recettes » all the subsidies (“Subventions”)

Source : Développement des Recettes 1908 - 1925. Compte définitif des recettes et des dépenses de la colonie du Niger. Bibliothèque nationale de France. Gallica digital library Bibliothèque nationale. www.bnf.fr

Note : 3*= « Produits divers » excluding « Subvention ».

Police and prison Expenditures = Police et Prison [**Police** (Personnel + Matériel) + **Prison** (personnel + Matériel)] → 1907 = [Ch. V (Art.1+2+3+4)]. **From 1919, Police and prison Expenditures** = Service d'administration (Personnel + Matériel)

Table: Aggregation of the Police and Prison Expenditures of the colony of Niger 1908 - 1925

Year	Police and Prison personnel		Police and Prison matériel		Police and Prison Expenditures
	Rubrics	Items	Rubrics	Items	
1908	Ch.5	Art.1+2	Ch.5	Art.3+4	∑ Articles
1909	Ch.5	Art.1+2	Ch.6	Art.1+2+3	∑ Articles
1910 - 1911	Ch.7	Art.1+2	Ch.8	Art.1+2+3+4	∑ Articles
1912	Ch.7	Art.1+2	Ch.8	Art.1+2+3	∑ Articles
1913	Ch.7	Art.1+...5	Ch.8	Art.1+2+3	∑ Articles
1919	Ch.4	Art.8+9+10	Ch.5	Art.5+6+8+9+10+11+ 12*	∑ Articles
1920	Ch.4	Art.8+9+10	Ch.5	Art.5+6+8+9+10+11+12	∑ Articles
1921	Ch.4	Art.8+9+10	Ch.5	Art.5+6+7+9+10+11+12	∑ Articles
1922	Ch.4	Art.8+9+10	Ch.5	Art.6+7+9+10+11+12+ 13*	∑ Articles
1923-1925	Ch.4	Art.6+8	Ch.5	Art.5+6+8	∑ Articles

Source : Développement des Recettes 1908 - 1925. Compte définitif des recettes et des dépenses de la colonie du Niger. Bibliothèque nationale de France. Gallica digital library Bibliothèque nationale. www.bnf.fr

Note: **12***= Item 6 of article 12; **13***= Item 6 of article 13.

Public Works Expenditures = [Personnel des Travaux publics +Travaux d'Entretiens Travaux neufs → 1907 = [Ch. XII (Art.1) + Ch. XIII (Art.1+2+3+4)]

Table: Aggregation of the Public Works Expenditures of the colony of Niger 1908 - 1913

Year	Personnel des Travaux publics		Travaux d'Entretiens		Travaux Neufs		Public Works Expenditures
	Rubrics	Items	Rubrics	Items	Rubrics	Items	
1908	Ch.7	Art.1	Ch.7	Art.2	Ch.7	Art.3	∑ Articles
1909	Ch.7	Art.1+(4+5)*	Ch.7	Art.2	Ch.7	Art.3	∑ Articles
1910	Ch.10	Art.1	Ch.10	Art.2	Ch.10	Art.3	∑ Articles
1911	Ch.7	Art.1+(4+5)*	Ch.7	Art.2	Ch.7	Art.3	∑ Articles
1912	Ch.7	Art.1+(4)*	Ch.7	Art.2	Ch.7	Art.3	∑ Articles
1913	Ch.16	Art1+2	Ch.17	Art1+2	Ch.17	Art1*	∑ Articles

Source: Développement des Dépenses 1908 - 1925. Compte définitif des recettes et des dépenses de la Colonie du Niger. Bibliothèque Nationale de France. Gallica digital library. www.bnf.fr

Note : To simplify our computation, I added article (4+5)* to the spending related to the personnel of "Travaux public" because the CDRD of 1909 gives no detail on the nature of article 5 ("Dépenses des exercices clos" and the spending pertaining to article 4 was done to help move the headquarter of the Military command of the territory to the Region of Gao (Town located in actual Mali). (4)*= Dépenses des exercices clos. Art1*= Items 1,2 and 7 indicates expenses on « Construction Neufs ».

From 1919 Public Work Expenditures = Produits des exploitations industrielles (personnel +dépenses des exercices clos) + Produits des exploitations industrielles (Main-d'œuvre

+dépenses des exercices clos) + Produits des exploitations industrielles (Matériel +dépenses des exercices clos) + Travaux publics (Entretiens, Neuves et réparations)

Table: Aggregation of the Public Works Expenditures of the colony of Niger 1919 - 1925

Year	Produits des exploitations industrielles personnel		Produits des exploitations industrielles Main-d'œuvre		Produits des exploitations industrielles Matériel		Travaux publics (Entretiens, Neuves et Réparations)		Public Works expenditures
	Rubrics	Articles	Rubrics	Articles	Rubrics	Articles	Rubrics	Articles	
1919	Ch.8	5	Ch.9	4	10	6	11	1+...5	Σ Articles
1920-1922	Ch.8	5	Ch.9	5	10	5	11	1+...5	Σ Articles
1923 - 1925	Ch.8	5	Ch.9	5	10	5	11	1+2+3	Σ Articles

Source : Développement des Dépenses 1908 - 1925. Compte définitif des recettes et des dépenses de la Colonie du Niger. Bibliothèque Nationale de France. Gallica digital library. www.bnf.fr

Healthcare Expenditures = Service sanitaire (Personnel + Matériel) → 1907 = [Ch. XI (Art.1+2)]. **From 1919, Healthcare Expenditures** = Service d'intérêt Social et Économique (Personnel + Matériel)

Table: Aggregation of the Healthcare Expenditures of the colony of Niger 1908 - 1925

Year	Service sanitaire personnel / <i>Service d'intérêt Social et Économique (Personnel)</i>		Service sanitaire matériel / <i>Service d'intérêt Social et Économique (Matériel)</i>		Healthcare Expenditures
	Rubrics	Items	Rubrics	Items	
1908	Ch.6	Art.1+2+4+5	Ch.6	Art.3	Σ Articles
1909	Ch.7	Art.1+2+3+5	Ch.7	Art.4+6	Σ Articles
1910-1912	Ch.9	Art.1+2+3+5	Ch.9	Art.4+6	Σ Articles
1913	Ch.19	Art.1+2+3	Ch.20	Art.1+2+3	Σ Articles
1919	Ch.12	Art.1	Ch.13	Art.1+...4+6*	Σ Articles
1920-1921	Ch.12	Art.1	Ch.13	Art.1+...4	Σ Articles
1922	Ch.12	Art.1+4*	Ch.13	Art.1+...4+7*	Σ Articles
1923 - 1925	Ch.12	Art.1+5	Ch.13	Art.1+...6	Σ Articles

Source : Développement des Dépenses 1908 - 1925. Compte définitif des recettes et des dépenses de la Colonie du Niger. Bibliothèque Nationale de France. Gallica digital library. www.bnf.fr

Note : For simplicity reason, I added to material expenses the charges incurred on “Dépenses des exercices clos” (*Articles 6*) because the CDRD of 1909 gives no details on nature of the expense. 6*= Item 3 of article 6; 4*= Item 1 of article 4; 7*=Item 3 of article 7;

Education Expenditures = Instruction publique (Personnel + Matériel) → 1907 = [Ch. VII (Art.1) *]. **From 1919, Education Expenditures** = Service d'intérêt Social et Économique (Personnel + Matériel)

Table: Aggregation of the Education Expenditures of the colony of Niger 1908 – 1925

Year	Instruction publique personnel / <i>Service d'intérêt Social et Économique (Personnel)</i>		Instruction publique matériel / <i>Service d'intérêt Social et Économique (Matériel)</i>		Education Expenditures
	Rubrics	Items	Rubrics	Items	
1908 - 1911	Ch.4	Art.2	Ch.4	Art.2*	Σ Articles
1912	Ch.4	Art.2	Ch.4	(Art.2)**	Σ Articles
1913	Ch.21	Art.1+2+3	Ch.22	Art.1+2+3	Σ Articles
1919 – 1921	Ch.12	Art.3	Ch.13	Art.6	Σ Articles
1922	Ch.12	Art.3+4*	Ch.13	Art.6	Σ Articles
1923 – 1925	Ch.12	Art.6	Ch.13	Art.7	Σ Articles

Source : Développement des Dépenses 1908 - 1925. Compte définitif des recettes et des dépenses de la Colonie du Niger. Bibliothèque Nationale de France. Gallica digital library. www.bnf.fr

Note: Art.2*= The last two items of article 2 indicate the cost of materials and the remaining ones represent the wages of the personnel or fees paid to them. **(Art.2)****= Item 3 as well as 3 and 4 of article 2 represent the money spent on materials. **4***= Item 3 of article 4.

Justice Expenditures = Justice Indigène (Personnel + Matériel) → 1907 = [Ch. VII (Art.1)*]. **From 1919, Justice Expenditures** = Service d'administration générale (Personnel + Matériel)

Table: Aggregation of the Justice Expenditures of the colony of Niger 1908 – 1925

Year	Justice Indigène (Personnel) / <i>Service d'administration générale (personnel)</i>		Justice Indigène (Matériel) / <i>Service d'administration générale (Matériel)</i>		Justice Expenditures
	Rubrics	Items	Rubrics	Items	
1908 – 1909	Ch.4	Art.1	-	-	Σ Articles
1910	Ch.1	Art.5	-	-	Σ Articles
1911	Ch.1	Art.4	-	-	Σ Articles
1912	Ch.1	Art.3	-	-	Σ Articles
1913	Ch.6	Art.1	-	-	Σ Articles
1919 – 1920	Ch.4	Art.7	Ch.5	Art.7	Σ Articles
1921 -1922	Ch.4	Art.7	Ch.5	Art.8	Σ Articles
1923 – 1925	Ch.4	Art.5	Ch.5	Art.4	Σ Articles

Source : Développement des Dépenses 1908 - 1925. Compte définitif des recettes et des dépenses de la Colonie du Niger. Bibliothèque Nationale de France. Gallica digital library. www.bnf.fr

From the total revenue of the colony, I excluded all subsidies granted by the federal government, as shown in the table below.

Table: Subsidies received, and Revenues collected from the Reserve Funds of the colony of Niger 1908-1925

Year	Subventions	Fonds de reserves
1908	125000	
1909	100000	
1910	392473,27	
1911	300000	
1912	275000fr	
1913	135000	
1919	256,50	
1920	644000	-
1921	393387	-
1922	417025,38	-
1923	500000	-

Source : Développement des Dépenses 1908 - 1925. Compte définitif des recettes et des dépenses de la Colonie du Niger. Bibliothèque Nationale de France. Gallica digital library. www.bnf.fr

The colony of Djibouti (French Somaliland)

The French colonial adventure in Djibouti began with the purchase of the territory of Obock from the local chiefs and the establishment of the protectorate of Tajourah. Officially, it became a colony in 1896 under the name of “La côte Française des Somalis” (French Somaliland) and gained its independence from France in 1977. The data on the colony of French Somaliland comes from the CDRD and covers the years 1907 to 1925.

Total Net revenue = Direct Taxes (Contributions Directes) + **Indirect Taxes** (Contributions Indirectes/ Contributions autres que les contributions directes) + **Other Taxes*** (Σ Produits Divers) Or **Total Net Revenue** = Total Revenue – Subvention – Fonds de réserves recettes du compte spécial.

From 1919 Total Net Revenue = Direct taxes (Σ Contributions sur Rôles) + Indirect Taxes (Σ Produits des exploitations industrielles + Droit d’enregistrement + Timbre) + Other revenues (Σ (Domaines + Forêts + Produits percus sur ordre de recettes³⁰ + recettes extraordinaires)

Table: Aggregation of the Revenue of the colony of Djibouti 1907-1925

Year	Recettes Ordinaires						Autres Contributions						Total Net Revenue
	Contributions directes (CD)			Contributions Indirectes CI)			Produits divers des Contributions ordinaires			Produits des recettes extraordinaires			
	Titre/ Sect°	Ch.	Art.	Titre/ Sect°	Ch.	Article	Titre/ Sect°	Chap.	Article	Titre/ Sect°	Ch.	Art.	
1907 - 1908		2	1		3	1		4	1	-	-	-	∑ Articles
1909		1	1		2	1		3	1				∑ Articles
1910	1	-	1	1	-	2	1+2	-	3+1*	-	-	-	∑ Articles
1911	1	-	1	1	-	2	1+2	-	3+1	-	-	-	∑ Articles
1912	1	-	1	1	-	2	1+2	-	(3+4) + 1**	-	-	-	∑ Articles
1913	1	-	1	1	-	2	1+2	-	(3+4)	-	-	-	∑ Articles
1919	1	1	1+2	1	2+3	(1+2+3 + 4+5) + (1+2)	1	2+4+ 6+7	(6)+(1+...4)+(1)+ 2(2+5)*	-	-	-	∑ Articles
1920-1921	1	1	1+2	1	2+3	(1+2+3+4+5) + (1+2)	1	2+4+ 6+7	(6)+(1+...4)+(1)+ 2(2+4+6)*	-	-	-	∑ Articles
1922	1	1	1+2	1	2+3	(1+2+3+4+5) + (1+2)	1	2+4+ 6+7	(6)+(1+...4)+(1)+ 2(2+5+7)*	-	-	-	∑ Articles
1923	1	1	1+2	1	2+3	(1+2+3+4+5) + (1+2)	1	2+4+ 6+7	(6)+(1+...4)+(1)+ 2(4+5+7+8+9+10+ 11+12)*	-	-	-	∑ Articles
1924	1	1	1+2	1	2+3	(1+2+3+4+5) + (1+2)	1	2+4+ 6+7	(6)+(1+...4)+(1)+ 2(2+4+6+8)*	-	-	-	∑ Articles
1925	1	1	1+2	1	2+3	(1+2+3+4+5) + (1+2)	1	2+4+ 6+7	(6)+(1+...4) + (1)	-	-	-	∑ Articles

Source : Développement des Recettes 1907 - 1925. Compte définitif des recettes et des dépenses de la colonie du Djibouti. Bibliothèque nationale de France. Gallica digital library Bibliothèque nationale. www.bnf.fr

Note: Sect°= Section; 1*= element 4 and 5 of article 1 (article unique); 1 **= element 3, 4 and 5 of article 1 (article unique); 2(2+5) *= items 2 and 5 of article 2; 2(2+4+6) *= items 2, 4 and 6 of article 2; 2(2+5+7) *= items 2, 5 and 7 of article 2;

³⁰ I excluded from « Produits percus sur ordre de recettes » all the subsidies (“Subventions”)

In 1908, 1909, and 1910, the heading “contribution indirectes” (indirect contribution/tax) was labelled differently in the CDRD of the same year. Taxes appear under “contribution diverses” or “Contributions Autres que les Contributions Directes” (miscellaneous contributions/taxes other than direct contributions/taxes), which I record in our dataset. I also retracted from the total revenue, the receipts of “Article unique” in the years 1910, 1911, 1912, and 1913 because those revenue were destined for Ethiopia³¹.

Police and prison Expenditures = Police et Prison [**Police** (Personnel + Matériel) + **Prison** (personnel + Matériel)] → 1907 = [Ch. V (Art.1+2+3+4)]. **From 1919 Police and prison Expenditures** = Service d’administration (Personnel + Matériel)

Table: Aggregation of the Police and Prison Expenditures of the colony of Djibouti 1907-1925

Year	Police and Prison personnel		Police and Prison matériel		Police and Prison Expenditures
	Chapter	Article	Chapter	Article	
1907-1911	3	2*	3	2**	Σ Articles
1912-1913	6	1	6	2	Σ Articles
1919	4	6+8	5	4	Σ Articles
1920	4	6+8	5	5	Σ Articles
1921	4	6+8	5	5+7	Σ Articles
1922-1923	4	6+8	5	5	Σ Articles
1924-1925	4	6+8	5	6	Σ Articles

Source : Développement des Recettes 1907 - 1925. Compte définitif des recettes et des dépenses de la colonie du Djibouti. Bibliothèque nationale de France. Gallica digital library Bibliothèque nationale. www.bnf.fr

Note : 2*= Paragraph 1 of article 2; 2**= Paragraph 2 of article 2.

Public Works Expenditures = [Personnel des Travaux publics + Matériel + Travaux d’Entretiens Travaux neufs → 1907 = [Ch. VII (Art.1) + Ch. XIII (Art.1+2+3+4)]. **From 1919 Public Work Expenditures** = Dépenses d’intérêts économiques (personnel + Main-d’œuvre + Matériel + Entretiens, Neuves et réparations)

Table: Aggregation of the Public Works Expenditures of the colony of Djibouti 1907-1913

Year	Dépenses d’intérêts économiques / Personnel des Travaux publics		Dépenses d’intérêts économiques / Travaux d’Entretiens - Matériel		Dépenses d’intérêts économiques / Travaux Neufs		Public Works Expenditures
	Chapter	Articles	Chapter	Articles	Chapter	Articles	
1907-1910	7	1(1*)	7	1(2*)	-	-	Σ Articles
1911	8	1(1*)		1(2*)	-	-	Σ Articles
1912	13	1	13	2+3	13	5+6	Σ Articles
1913	13	1			13	2°+3+5+6	

Source : Développement des Dépenses 1907 - 1913. Compte définitif des recettes et des dépenses de la Colonie du Djibouti. Bibliothèque nationale de France. Gallica digital library. www.bnf.fr

Note : 1(1*)=Paragraph 1 of article 1 (“Personnel”) ; 1(2*)= Paragraph 2 of article 1 (“Matériel”). 2°= conflated with charges of « Travaux d’entretiens » (Paragraph 2 of article 2).

³¹ When the colony of French Somaliland was created, it was declared as the port of Ethiopia.

From 1919 Public Work Expenditures = Produits des exploitations industrielles (personnel) + Produits des exploitations industrielles (Main-d'œuvre) + Produits des exploitations industrielles (Matériel) + Travaux publics (Entretiens, Neuves et réparations).

Table: Aggregation of the Public Works Expenditures of the colony of Djibouti 1919-1925

Year	Produits des exploitations industrielles personnel		Produits des Exploitations Industrielles Main-d'œuvre		Produits des exploitations industrielles Matériel		Produits des exploitations industrielles (Entretien, Neuves et Réparations)		Public Works Expenditures
	Chapter	Article	Chapter	Article	Chapter	Article	Chapter	Article	
1919-1925	8	3	-	-	9	3	-	-	Σ Articles

Source : Développement des Dépenses 1919-1925. Compte définitif des recettes et des dépenses de la Colonie du Djibouti. Bibliothèque nationale de France. Gallica digital library. www.bnf.fr

Healthcare Expenditures = Service sanitaire (Personnel + Matériel) → 1907 = [Ch. XI (Art.1+2)] **From 1912 Healthcare Expenditures** = Service / Dépenses d'intérêt Social (Personnel + Matériel). **From 1919 Healthcare Expenditures= From 1919 Healthcare Expenditures** = Service d'intérêt Social et Économique (Personnel + Matériel)

Table: Aggregation of the Healthcare Expenditures of the colony of Djibouti 1907-1925

Year	Service sanitaire personnel / <i>Dépenses d'intérêt Social et Économique (Personnel)</i>		Service sanitaire matériel / <i>Dépenses d'intérêt Social et Économique (Matériel)</i>		Healthcare Expenditures
	Chapter	Article	Chapter	Article	
1907-1909	6	1*	Ch.6	Art.1**	Σ Articles
1910	6	1*+2*	Ch.6	Art.1**+2**	Σ Articles
1911	7	1+2+3(1'+1''+1''')	Ch.7	Art.1+2+3(2'+2''+2''')	Σ Articles
1913	16	1°+2°+3°			Σ Articles
1919	10	1+2+3	11	1+2+3	Σ Articles
1920-1923	10	1+2+3	11	1	Σ Articles
1924	10	1+2+3	11	1+2	Σ Articles
					Σ Articles

Source : Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de la Colonie du Djibouti. Bibliothèque Nationale de France. Gallica digital library. www.bnf.fr

Note : 1* = Paragraph 1 ("Personnel") of article 1 and 1**= Paragraph 2 ("Matériel") of article 1. 2** = Paragraph 1 ("Personnel") of article 2 and 2**= Paragraph 2 ("Matériel") of article 2. (1'+1''+1''')= Paragraphs indicating personnel expenses of the of article 1,2 and 3. (2'+2''+2''')=)= Paragraphs indicating material expenses of the of article 1,2 and 3; 1°+2°+3°= The expenses of these articles comprise personnel and material cost. The accounting document did not distinguish the charges into separate paragraphs or articles. For simplicity, I recorded the cost for that under personnel expenses in the table.

Education Expenditures = Instruction publique (Personnel + Matériel) → 1907 = [Ch. VII (Art.1)*] **From 1919 Education Expenditures** = Service/Dépenses d'intérêt Social et Économique (Personnel + Matériel)

Table: Aggregation of the Education Expenditures of the colony of Djibouti 1907-1925

Year	Instruction publique personnel / <i>Dépenses d'intérêt Social et Économique (Personnel)</i>		Instruction publique matériel / <i>Dépenses d'intérêt Social et Économique (Matériel)</i>		Education Expenditures
	Chapter	Article	Chapter	Article	
1907-1910	8	1*	-	-	Σ Articles
1911	9	1*	-	-	Σ Articles
1912-1913	17	1	-	-	Σ Articles
1919	10	4	11	4	Σ Articles
1920	10	4	11	2	Σ Articles
1921	10	4	-	-	
1922	10	4	11	2	
1923	10	4	11	2	Σ Articles
1924-1925	10	4	11	3	Σ Articles

Source : Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de la Colonie du Djibouti. Bibliothèque nationale de France. Gallica digital library. www.bnf.fr

Note: 1* Item 6 and 19 of article 1 of the rubric "Dépenses diverses" (Chap. 9).

There were no expenditures recorded under the heading of Education in either BSL or CDRD, as I documented in the following table. The expenditures listed in the table below refer to honorarium for an "Abyssinian" language teacher at "l'école des langues orientales". The subsidy for the boys' and girls' school ("subvention aux écoles des garçons et des filles"). The fees for the "Alliance Française de l'instruction publique".

Table: Additional Education Expenditures

Year	1900	1903	1904	1905	1907	1908	1909	1910	1911	1912
Fees	4001,16	2900	3900	560,40	7000,40	6000	2000,40	7360	8500	

Justice Expenditures = Justice Indigène (Personnel + Matériel) → 1907 = [Ch. VII (Art.1)*]. **From 1919 Justice Expenditures** = Service d'administration générale (Personnel + Matériel)

Table: Aggregation of the Justice Expenditures of the colony of Djibouti 1907-1925

Year	Justice Indigène (Personnel) / <i>Service d'administration générale (personnel)</i>		Justice Indigène (Matériel) / <i>Service d'administration générale (Matériel)</i>		Justice Expenditures
	Chapter	Article	Chapter	Article	
1907-1910	5	1*	5	1**	Σ Articles
1911	5	1	5	2	Σ Articles
1912-1913	7	1*+2*	-	-	Σ Articles
1919	4	4+5	5	3	Σ Articles
1920-1923	4	4+5	5	4	Σ Articles
1924-1925	4	4+5	5	4+5	Σ Articles

Source : Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de la Colonie du Niger. Bibliothèque nationale de France. Gallica digital library. www.bnf.fr

Note : 1*= article 1 «Justice Européenne (Personnel + Matériel)» ; 2*= article 2 « Justice Indigène (Personnel + Matériel).

Table: Subsidies received, and Revenues collected from the reserve funds of the colony of Djibouti

Year	Subventions	Fonds de reserves	Revenue due aux autres institutions
1907	615000		
1908	570000	979,51	
1909	-	132000	
1910	510000	112730,40	16638,92
1911	-		19331,21
1912	500000		35140,35
1913	500000		64147,70
1919	300000	250000	22726,62
1920	300000		29284,07
1921		718000	48294,92
1922			178405,56
1923			498895,74
1924		550000	584020,3
1925	695848,02		

Source : Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de la Colonie du Djibouti. Bibliothèque Nationale de France. Gallica digital library. www.bnf.fr

I have subtracted from the total revenue all subsidies as well as the reserve funds (97452.62 Fr.), which were mixed up with “recettes diverses non classées” listed under “contribution diverses”. I have also excluded 107537.64 Fr. of Revenue from the “compte speciale”³². The details are shown in the table below.

Table: Additional Subsidies received, and Revenues collected from the reserve funds of the colony of Djibouti

Year	1907	1908	1909	1910	1911	1912	1913
subsidy	615000	570000		510000		500000	500000
Reserve .funds		979,51	132000	112730,40			
Recettes unique				16638,92	19331,21	35140,35	64147,70

Source : Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de la Colonie du Djibouti. Bibliothèque Nationale de France. Gallica digital library. www.bnf.fr

³² In French budgetary law, a special account records government revenues earmarked for specific expenditures. The special accounts are separate from the general budget of the state, but their creation and the funds allocated to them are decided in the budget law.

The colony of French Guinea

French colonization of Guinean territories began around 1860 following a series of treaties signed with native leaders. First known as “Rivières du Sud” between 1882 and 1891, it became a colony in 1895 under the name of French Guinea before joining the Federation of French Africa in 1904. Data on the colony of French Guinea are from the CDRD for the period 1907 to 1925.

Total Net revenue* = Direct Taxes (Σ Contributions Directes) + **Indirect Taxes** (Σ Contributions Indirectes / Droits d'enregistrement et de greffe) + **Other Taxes*** (Contribution indirectes + Σ Postes et Télégraphes + Σ Produits Divers excluding Σ Postes and Télégraphes) Or **Total Net Revenue** = Total Revenue – Subvention – Fonds de réserve. → **1907** = [Titre.1 (Art.1+ Art.2 excluding item 1 of Art2 + Art.3+4]

From 1919 Total Net Revenue = Direct taxes (Σ Contributions sur Rôles) + Indirect Taxes (Σ Produits des exploitations industrielles + Droit d'enregistrement + Timbre) + Other revenues Σ (Domaines + Forêts + Produits percus sur ordre de recettes³³ + recettes extraordinaires).

Table: Aggregation of the Revenue of the colony of Guinea

Year	Recettes Ordinaires						Autres Contributions						Total Net Revenu e
	Contributions directes (CD)			Contributions Indirectes CI)			Produits divers des Contributions ordinaires			Produits des recettes extraordinaires			
	Titr e	Chap .	Articl e	Titr e	Chap .	Article	Titr e	Chap. .	Article	Titr e	Chap .	Article	
1907	1	-	1	1	-	2(§1)*+ 4(§1)*	1	-	2(§2+3)*+ 3+4(§2+...8)	-	-	-	Σ Titres
1908	1	-	1	1	-	2+ 3(§1+...4) *	1	-	Σ3 - (§1+...4)*				Σ Articles
1909 - 1913	1	-	1	1	-	2+ 3(§1+...5) *			Σ3 - (§1+...5)*				Σ Articles
1919	1	1	1+2+3	1	2+3	2(§1+2)* +(1+...5)	1	2+ 4+6+ 7	2(3)*+ (1+...5) +(1)+(1)	S2	8	1(§2)	Σ Articles
1920	1	1	1+2+3	1	2+3	2(§1+2)* +(1+...5)	1	2+ 4+6	2(3)*+ (1+...5) +(1)	S2	8	1	Σ Articles

Source : Développement des Recettes 1907 - 1925. Compte définitif des recettes et des dépenses de la colonie du Guinée. Bibliothèque Nationale de France. Gallica digital library Bibliothèque Nationale. www.bnf.fr

Note 1: S= section; §= paragraph; **Note 2 :** 3(§1+...4)*= paragraph 1 to 4 of article 3; Σ 3-(§1+...4)*= Sum of article 3 excluding the first 4 items of article 3; 3(§1+...5)*= Items 1 to 5 of article 3; Σ 3-(§1+...5)*= Sum of article 3 excluding the first 5 items of article 3; 2(1+2)= Items 1 and 2 of article 2; 2(3)*= Item 3 of article 2; 2(3+4)= Items 3 and 4 of article 2;

³³ I excluded from « Produits percus sur ordre de recettes » all the subsidies (“Subventions”)

In 1907, the heading indirect contribution was not indicated in the "compte définitif". I entered the "contribution produits des mines, and produits des domaines" as indirect tax because the following year the same products were entered as indirect contributions by the colonial government. In 1908, 1909, 1910, 1911, 1912, and 1913, "droit d'enregistrement et de greffe" and "droits des domaines" are recorded as "contributions indirectes" (indirect taxes), while in most of the previous years they were recorded as "contribution de produits divers" (miscellaneous taxes/products). This shows a specification problem in the reporting of the data.

Police and Prison Expenditures = [Police des cercles + Police, Gendarmerie, Prison (Personnel + Matériel)] → 1907 = [Ch. V (Art.1+2)+ Ch. XI (Art.1+2+3)]. **From 1919, Police and prison Expenditures** = Service d'administration (Personnel + Matériel)

Table: Aggregation of the Police and Prison Expenditures of the colony of Guinea 1907-1925

Year	Police and Prison personnel		Police and Prison matériel		Police and Prison Expenditures
	Chapter	Article	Chapter	Article	
1907	5+11	(1)+[1(1)+2(1)+3(1)]*	5+11	(2)+[1(2)+2(2)+3(2)]**	Σ Articles
1908	6+13	(2)+(1+2+3)	7+14	(2)+(1+2+3)	Σ Articles
1909-1911	14	1+2+3	15	1+2+3	Σ Articles
1912	15	1+2+3	16	1+2+3	Σ Articles
1913	9	1+2+3	10	1+2+3	Σ Articles
1919	4	6+7+10	5	5+7+8	Σ Articles
1920	4	6+7+10	5	5+8	Σ Articles
1921-1923	4	6+7+10	5	6+7+10	Σ Articles
1924	4	6+7+10+11(6+7)*	5	6+7+10+11(5+6+8)*	Σ Articles
1925	4	6+7+10+11(6+7+10)*	5	6+7+10+11(5)*	Σ Articles

Source : Développement des Recettes 1907 - 1925. Compte définitif des recettes et des dépenses de la Colonie du Guinée. Bibliothèque nationale de France. Gallica digital library Bibliothèque nationale. www.bnf.fr

Note: [1(1)*+2(1)*+3(1)]*= represent paragraph 1 (Personnel) of each article of chapter 11; [1(2)+2(2)+3(2)]**= represent paragraph 2 (material) of each article of chapter 11; 11(6+7)*= paragraph 6+7 of article 11 (Chapter 4); 11(5+6+8)*= paragraph 5+6+8 of article 11(Chapter 5);

Public Works Expenditures = [Travaux publics Personnel +Travaux Publics Matériel (Matériel, d'Entretiens, neufs, autres travaux³⁴) → 1907 = [Ch. XII (Art.1) + Ch. XIII (Art.1+2+3+4)]

Table: Aggregation of the Public Works Expenditures of the colony of Guinea 1907-1913

Year	Personnel des Travaux publics		Travaux publics Matériel		Travaux d'Entretiens		Travaux Neufs		Public Works Expenditures
	Chapter	Article	Chapter	Article	Chapter	Article	Chapter	Article	
1907	13	1	14	1	14	3	14	2+5	Σ Articles
1908	17	1+2+3							Σ Articles
1909-1911	20	1+...5	21	1	21	1+2	21	4+(5+6)*	Σ Articles
1912	21	1+...5	22	1	22	1+2	22	4+(5+6)*	Σ Articles
1913	21	1+...5	22	-	22	1+2	22	3+4+(5+6)*	Σ Articles

Source : Développement des Dépenses 1907 - 1913. Compte définitif des recettes et des dépenses de la Colonie du Guinée. Bibliothèque nationale de France. Gallica digital library. www.bnf.fr

³⁴ Autres Travaux= Other Public Works consists of « Travaux de voies d'accès au chemin de fer et travaux de viabilités aboutissant à la gare centrale ».

Note: (5+6)*= represent other public works expenses other than “Travaux Neufs”. Added in the colon of the later for simplicity reason.

From 1919 Public Work Expenditures = Produits des exploitations industrielles (personnel +dépenses des exercices clos) + Produits des exploitations industrielles (Main-d’œuvre +dépenses des exercices clos) + Produits des exploitations industrielles (Matériel +dépenses des exercices clos) + Travaux publics (Entretiens, Neuves et réparations)

Table: Aggregation of the Public Works Expenditures of the colony of Guinea 1919-1925

Year	Produits des exploitations industrielles personnel		Produits des exploitations industrielles Main-d’œuvre		Produits des exploitations industrielles Matériel		Travaux publics (Entretiens, Neuves et Réparations)		Public Works expenditures
	Chapter	Articles	Chapter	Articles	Chapter	Articles	Chapter	Articles	Σ Articles
1919-1923	8	6	9	6	10	6	11	1+...5	Σ Articles
1924	8	6+12(6)*	9	6	10	6+12(4)*	11	1+...5	Σ Articles
1925	8	6+12(6)*	9	6	10	6+12(6)*	11	1+...5	Σ Articles

Source : Développement des Dépenses 1919-1925. Compte définitif des recettes et des dépenses de la Colonie du Guinée. Bibliothèque nationale de France. Gallica digital library. www.bnf.fr

Note: 12(6)* and 12(4)*= Paragraph 6 and 4 of article 12 in chapter 8 and 10

Healthcare Expenditures = Assistance publique, service de santé et service sanitaire (Personnel + Matériel) → 1907 = [Ch. XII (Art.1+2)]. **From 1919, Healthcare Expenditures** = Service d’intérêt Social et Économique (Personnel + Matériel)

Table: Aggregation of the Healthcare Expenditures of the colony of Guinea 1907-1925

Year	Assistance publique, service de santé et service sanitaire / <i>Service d'intérêt Social et Économique</i>				Healthcare Expenditures
	Personnel		Matériel		
	Chapter	Article	Chapter	Article	
1907	12	1	12	2	Σ Articles
1908	15	1+2	16	1	Σ Articles
1909-1910	18	1+2+3	19	1+2+3	Σ Articles
1911-1912	19	1+2+3	20	1+2+3	Σ Articles
1913	32	1+2+3+4	33	1+2+3	Σ Articles
1919-1920	12	1+....5	13	1+....6	Σ Articles
1921	12	1+....5	13	1+....6+10	Σ Articles
1922-1923	12	1+....5	13	1+....5+9	Σ Articles
1924	12	1+....5+9(1+2+3)*	13	1+....5+9+10(1+....5)*	Σ Articles
1925	12	1+....5+9(2+5)*	13	1+....5+9+10(1+4+5)*	Σ Articles

Source : Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de la Colonie du Guinée. Bibliothèque nationale de France. Gallica digital library. www.bnf.fr

Note: 9(1+2+3)* and 10(1+...5)*= paragraph 1+2+3 and 1+2+3+4+5 of article 9 and 10 on chapter 12 and 13;

Education Expenditures = Instruction publique primaire et Ecole professionnelle (Personnel + Matériel) → 1907 = [Ch. VIII (Art.1+2)]. **From 1919, Education Expenditures** = Service d’intérêt Social et Économique (Personnel + Matériel)

Table: Aggregation of the Education Expenditures of the colony of Guinea 1907-1925

Year	Instruction publique (primaire et professionnelle / <i>Service d'intérêt Social et Économique</i>)				Education Expenditures
	Personnel		Matériel		
	Chapter	Article	Chapter	Article	
1907	8	1(1)* + 2(1)*	8	1(2)* + 2(2)*	Σ Articles
1908	9	1(1)*+2(1+2)*+3(1)*	9	1(2)*+2(2)*+3(2)*	Σ Articles
1909	9	1+2+3+4+5	10	1+2+3+4	Σ Articles
1910-1912	9	1+2+3+4+5+6	10	1+2+3+4	Σ Articles
1913	34	1+2+3+4+5	35	1+2+3+4	Σ Articles
1919-1921	12	6+7+8	13	7+8+9	Σ Articles
1922-1923	12	6+7+8	13	6+7+8	Σ Articles
1924	12	6+7+8+9(4+5+6)*	13	6+7+8+10(6+7+8)*	Σ Articles
1925	12	6+7+8+9(6)*	13	6+7+8+10(7)*	Σ Articles

Source : Développement des Dépenses 1907-1925. Compte définitif des recettes et des dépenses de la Colonie du Guinée. Bibliothèque nationale de France. Gallica digital library.

Note: 1(1) * + 2(1) *= represents paragraph 1 (personnel) of each article of chapter 8; 1(2)* + 2(2)*= represents paragraph 2 (Matériel) of article 2 of chapter 8 ; 2(1+2)*= paragraph 1+2 (personnel) of article 1; 3(2)*= paragraph 1 (matériel) of article 3 ; 9(4+5+6)* and 10(6+7+8)*= paragraph 4+5+6 and 6+7+8 of articles 9 and 10 on chapter 12 and 13;

Justice Expenditures = Administration des cercles – Justice Indigène (Personnel + Matériel) 1907 = [Ch. III. (Art.4) + Ch. IV (Art.3(2)*]. **From 1919, Justice Expenditures** = Service d'administration générale (Personnel + Matériel)

Table: Aggregation of the Justice Expenditures of the colony of Guinea 1907-1925

Year	Justice Indigène / <i>Service d'administration générale</i>				Justice Expenditures
	Personnel		Matériel		
	Chapter	Article	Chapter	Article	
1907 – 1908	3	4	4	3(2)*	∑ Articles
1909 – 1912	4	4	5	2	∑ Articles
1913	8	1	8	2	∑ Articles
1919	4	5	5	4	∑ Articles
1920	4	5	5	4	∑ Articles
1921-1925	4	5	5	5	∑ Articles

Source : Développement des Dépenses 1907-1925. Compte définitif des recettes et des dépenses de la Colonie du Guinée. Bibliothèque nationale de France. Gallica digital library. www.bnf.fr

Note : 3(2)*]= Item 2 of article 3.

I excluded from the total revenue of the colony all incomes derived from the reserve funds for the years shown in the table below.

Table: Subsidies received, and Revenue collected from the reserve funds of the colony of Guinea

Year	Subventions	Fonds de reserves
1907		
1908		
1909		1259720
1910		55995,54
1911		388038,79
1912		10508,04
1913		696741,68
1919	173207,50	
1920	56372,50	-
1921	2800	-
1922	300000	-
1923	408946,24	1092760
1924	130000	942125
1925	250000	500000

Source : Développement des Dépenses 1907-1925. Compte définitif des recettes et des dépenses de la Colonie de Guinée. Bibliothèque Nationale de France. Gallica digital library. www.bnf.fr

The colony of French Sudan (Mali) (I use the BSL for the year 1907, 1912 and 1913.)

The colony of Mali, renamed the Colony of French Sudan in 1920, was a French colony that included parts of present-day Mauritania, Burkina Fasso, and Niger at its creation, and was later incorporated into the colonial federation of French West Africa. It was governed under various names from 1880 until its independence in 1960. To aggregate the revenue and expenditure variables of the colony, I extracted data from the various documents of the territories of Upper Senegal and Niger, as well as French Sudan.

Total Net revenue* = **Direct Taxes** (Σ Contributions Directes) + **Indirect Taxes** (Σ Contributions Indirectes + Droits d'enregistrement et de greffe+ produits des postes et télégraphes) + **Other Taxes*** (Σ Produits Divers excluding Σ Postes and Télégraphes) Or **Total Net Revenue** = Total Revenue – Subvention – Fonds de réserve. → **1907** = [Titre.1 (Art.1+ Art.2+Art.3 excluding item 1 of Art3 + the remaining items of Art.3]

From 1919 Total Net Revenue = Direct taxes (Σ Contributions sur Rôles) + Indirect Taxes (Σ Produits des exploitations industrielles + Droit d'enregistrement + Timbre) + Other revenues (Σ (Domaines + Forêts + Produits percus sur ordre de recettes³⁵ + recettes extraordinaires)

Table: Aggregation of the Revenue of the colony of Mali 1907-1925

Year	Recettes Ordinaires						Autres Contributions						Total Net Revenue
	Contributions directes (CD)			Contributions Indirectes CI			Produits divers des Contributions ordinaires			Produits des recettes extraordinaires			
	Titre / Sect	Chap .	Art.	Titre / Sect	Chap .	Art.	Titre / Sect	Chap .	Art.	Titre / Sect	Chap .	Art.	
1907	1	-	1	1	-	2+3(1)*	1	-	3(2+...9+11)*				Σ Articles
1908	1	-	-	1	-	2+3(1+...5)*	1	-	3(6+...23+25)*				Σ Articles
1909	1	-	-	1	-	2+3(1+...6)*	1		3(7+...25)*				Σ Articles
1910	1	-	-	1	-	2+3(1+...6)*	1	-	3(7+...26)*				Σ Articles
1911	1	-	-	1	-	2+3(1+...6)*	1	-	3(7+...23+25+26)*	-	-	-	Σ Articles
1912	1	-	-	1	-	2+3(1+...6)*	1	-	3(7+...29)*	-	-	-	Σ Articles
1913	1	-	-	1	-	2+3(1+...6)*	1	-	3(7+...31)*				Σ Articles
1919 - 1925	1	1	1+2+3	1	2+3	2(1+2)*+1+2+3	1	2+4	2(3+4)*+4(2+3+4)*+6	-	-	-	Σ Articles

Source : Développement des Recettes 1907–1925 (See “Origine des recettes” for 1909 and 1910). Compte définitif des recettes et des dépenses de la colonie du Mali. Bibliothèque nationale de France. Gallica digital library Bibliothèque nationale. www.bnf.fr

³⁵ I excluded from « Produits percus sur ordre de recettes » all the subsidies (“Subventions”)

Note: I use the BSL for the year 1907, 1912, 1913, 1919, 1920 and 1921. 3(1+...5)*= Items 1+...5 of Titre 3; 2(1+2)*= Articles 1 and 2 of chapter2; 2(3+4)*= Articles 3 and 4 of chapter 2; 4(2+3+4)*= Articles 2, 3 and 4 of chapter 4; 4(2+...5)*= Articles 2 to 5 of chapter 4

Note: “Impôt Personnel” which in previous years consisted only of the contributions of the local African population experienced an augmentation from 1919 onward due to the addition of a new item: “Impôt personnel sur les Européens et Impôt sur les populations flottante ” (personal tax on Europeans and migrants). It means that from that year, Europeans were also subjected to payment of the capitation tax.

Police and prison Expenditures = [**Police + Gardes de cercles, prisons** (Personnel + Matériel)] → 1907 = [Ch. X (Art.1+2+3)]. **From 1919, Police and prison Expenditures** = Service d’administration générale (Personnel + Matériel de police and prisons)

Table: Aggregation of the Police and Prison Expenditures of the colony of Mali 1907-1925

Year	Police and Prisons personnel/ Service d’administration générale		Police and Prison matériel/ Service d’administration générale		Police and Prison Expenditures
	Chapter	Article	Chapter	Article	
1907	9	1+2+3	-	-	∑ Articles
1908	10	1+2+3	-	-	∑ Articles
1909-1910	13	1+2+3	14	1+2+3	∑ Articles
1911-1913	13	1+2+3+4	14	1+2+3+4	∑ Articles
1919-1925	4	6+10	5	5+6+9	∑ Articles

Source : Développement des Recettes 1907 - 1925. Compte définitif des recettes et des dépenses de la Colonie du Mali. Bibliothèque nationale de France. Gallica digital library Bibliothèque nationale. www.bnf.fr

Note: I used the BSL for the year 1907, 1912 and 1913. The material purchases are conflated with the personnel expenses in 1907 and 1908. There was no distinction made between personnel and material in 1907 and 1908. They were both under the same item.

Note : There is no indication in the budget of 1919 about the proportion of the “Dépenses des exercices clos (62601 fr.-personnel, + 7500- matériel)” attributed to the police and prisons expenditures. The amount is related to all the items of the “ Personnel du Service d’administration Générale”. Therefore, I couldn’t add the amount in our computation the variable in that year.

Public Works Expenditures = [Travaux publics Personnel +Travaux Publics Matériel (Matériel, d’Entretiens, neufs) → 1907 = [Ch. XII (Art.1) + Ch. XIII (Art.1+2+3+4)]

Table: Aggregation of the Public Works Expenditures of the colony of Mali 1907-1913

Year	Personnel des Travaux publics		Travaux publics Matériel		Travaux d’Entretiens		Travaux Neufs		Public Works Expenditures
	Chap.	Art.	Chap.	Art.	Chap.	Art.	Chap.	Art.	
1907	13	1	14	1	14	2	14	3	∑ Articles
1908	11	1	-	-	11	2	11	3	∑ Articles
1909	19	1	20	1	20	2	20	3+(4+5)*	∑ Articles
1910	19	1	20	(4)*	20	2	20	3+(1)*	∑ Articles
1911	19	1+2	20	1+4+5+6*	20	2	20	3	∑ Articles
1912	19+20	1+4(1)*	20	1+4(2)*+5+6	20	2	20	3	∑ Articles

Source : Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de la Colonie du Mali. Bibliothèque nationale de France. Gallica digital library. www.bnf.fr

Note : (4+5)*= other public works expenses («dépenses divers + quote-part de la Guinée »). (4)*= «Personnel et Matériel de la station électrique (Personnel and material of the electrical power station)». (1)*= «Frais divers

(diverse expenses)»; **6***= «Dépenses antérieures (expenses related to Previous year)»; **4(1)* +4(2)***= paragraph 1 and 2 of article 4 (personnel + material);

From 1919 Public Work Expenditures = Produits des exploitations industrielles (personnel +dépenses des exercices clos) + Produits des exploitations industrielles (Main-d'œuvre +dépenses des exercices clos) + Produits des exploitations industrielles (Matériel +dépenses des exercices clos) + Travaux publics (Entretiens, Neuves et réparations)

Table: Aggregation of the Public Works Expenditures of the colony of Mali 1919-1925

Year	Dépenses des exploitations industrielles personnel		Dépenses des exploitations industrielles Main-d'œuvre		Dépenses des exploitations industrielles Matériel		Travaux publics (Entretiens, Neuves et Réparations)		Public Works expenditures
	Chap.	Art.	Chap.	Art.	Chap.	Art.	Chap.	Art.	Σ Articles
1919-1923	8	6	9	6	10	6	11	1+...6	Σ Articles
1924-1925	8	5	9	5	10	5	11	1+...6	Σ Articles

Source : Développement des Dépenses 1907-1925. Compte définitif des recettes et des dépenses de la Colonie du Mali. Bibliothèque Nationale de France. Gallica digital library. www.bnf.fr

Note: There is no indication in the budget of 1919,1920 and 1921 about the proportion of the “Dépenses des exercices clos (22711 fr.- personnel, + 2439 fr – main-d'œuvre + 110882 fr - matériel)” attributed to the public works expenditures. The amount is related to all the items of the “Dépenses des exploitations industrielles du service local”. Therefore, I couldn't add the amount in my calculation the variable in that year.

“Dépenses des exercices clos 1920-1921 = (1500+8294.- personnel), (2047+2174 – main-d'œuvre), (60383+59561 - matériel)”

“Dépenses des exercices clos 1922-1923 = (6200+7239 - personnel), (2000+2184 – main-d'œuvre), (50000+50414 - matériel)”

“Dépenses des exercices clos 1924-1925 = (7417+7787.- personnel), (3045+3540 – main-d'œuvre), (88354+77954 - matériel)”

Healthcare Expenditures = Assistance publique, service de santé et service sanitaire (Personnel + Matériel) → 1907 = [Ch. XII (Art.1+2+3+4)]. **From 1919, Healthcare Expenditures** = Service d'intérêt Social et Économique (Personnel + Matériel)

Table: Aggregation of the Healthcare Expenditures of the colony of Mali 1919-1925

Year	Assistance publique, service de santé et service sanitaire / <i>Service d'intérêt Social et Économique</i>				Healthcare Expenditures
	Personnel		Matériel		
	Chapter	Article	Chapter	Article	
1907	12	1+2+4	12	3	Σ Articles
1908	10	1+2+4	10	3	Σ Articles
1919-1912	17	1+2+3	18	1+2+3+4	Σ Articles
1913	24	1+2+3	25	1+2+3+4	Σ Articles
1919-1921	12	1+...5	13	1+....6	Σ Articles
					Σ Articles
1924-1925	12	1+...5	13	1+....6	Σ Articles

Source : Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de la Colonie du Mali. Bibliothèque nationale de France. Gallica digital library. www.bnf.fr

Note: The Healthcare expenditures was included in section 5 dépenses d'intérêt social et économique in 1913. Furthermore, there is no indication in the budget of 1919, 1920 and 1921 on the proportion of the “Dépenses des exercices clos (12688 fr.-personnel, + 4320 fr - matériel)” attributed to the healthcare and education expenditures.

The amount is related to all the items of the “ Dépenses d'intérêt social et économique- personnel”. Therefore, I couldn't add the amount in the calculation the variable in that year.

“Dépenses des exercices clos 1920-1921= (8618+3567 - personnel), (4285+3695 - matériel)”

“Dépenses des exercices clos 1922-1923= (1400+1383 - personnel), (3000+3475 - matériel)”

“Dépenses des exercices clos 1924-1925= (3936+3619 - personnel), (29685+29050 - matériel)”

Education Expenditures = Inspection de l'enseignement+ École des fils des chefs + École régionale + École professionnelle + École urbaines et villages + École des filles + Enseignement musulman (Personnel + Matériel) → 1907 = [Ch.V(Art.2+...8) + (Art.9+10)]. **From 1919, Education Expenditures** = Service d'intérêt Social et Économique (Personnel + Matériel)

Table: Aggregation of the Education Expenditures of the colony of Mali 1919-1925

Year	Instruction publique (primaire et professionnelle / <i>Service d'intérêt Social et Economique</i>)				Education Expenditures
	Personnel		Matériel		
	Chapter	Article	Chapter	Article	
1907	6	2+...8	6	9	Σ Articles
1908	5	2+...8	5	9+10	Σ Articles
1909	8	1+...10	9	1+2+3	Σ Articles
1910-1912	8	1+...9	9	1+2+3	Σ Articles
1913	26	1+...10	27	1+2+3	Σ Articles
1919-1923	12	6+8	13	7+9	Σ Articles
1924-1925	12	6+8	13	7+8+9	Σ Articles

Source : Développement des Dépenses 1907-1925. Compte définitif des recettes et des dépenses de la Colonie du Mali. Bibliothèque nationale de France. Gallica digital library.

Justice Expenditures = Administration des cercles – Justice Indigène (Personnel + Matériel) 1907 = [Ch. V. (Art.1)]. **From 1919, Justice Expenditures** = Service d'administration générale (Personnel + Matériel)

Table: Aggregation of the Justice Expenditures of the colony of Mali 1919-1925

Year	Justice Indigène / <i>Service d'administration générale</i>				Justice Expenditures
	Personnel		Matériel		
	Chapter	Article	Chapter	Article	
1907	4	1	-	-	Σ Articles
1908	5	1	-	-	Σ Articles
1909	8	1	-	-	Σ Articles
1910	4	6	-	-	Σ Articles
1911-1912	4	7	-	-	Σ Articles
1913	7	1	-	-	Σ Articles
1919-1925	4	5	5	4	25+24

Source : Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de la Colonie du Mali. Bibliothèque nationale de France. www.bnf.fr

Note: The justice expenditure is under “Administration des cercles” for the Year 1910, 1911, 1912. Furthermore, there is no indication in the budget of 1920,1921,1922,1923,1924 and 1925 about the proportion of the “Dépenses des exercices clos [(28302+21006,50 - personnel) + (5324+5394 - matériel)]” attributed to the Justice as well as

the Police and prisons expenditures. Both indicators are chapters of “services d’administration Générale” and for which the latter expense was recorded as a unique charge.

“Dépenses des exercices clos 1922-1923= [(2000+19931 - personnel) + (5000+3248 - matériel)]”

“Dépenses des exercices clos 1924-1925= [(30795+29157 - personnel) + (10787+10388 - matériel)]”

I deducted all revenues related to subventions and reserve funds from the total revenue.

Table: Subsidies received, and Revenue collected from the reserve funds of the colony of Mali

Year	Subventions	Fonds de reserves
1907		31505
1908		30000
1909		-
1910		65332,70
1911		31505 + 296921,36
1912		300000
1913		346379,50
1919	528735,55	
1920	60000	-
1921	60000	-
1922	14000	-
1923	-	2050000
1924	-	1300000
1925	-	1300000

Source : Développement des Dépenses 1907-1925. Compte définitif des recettes et des dépenses de la Colonie de Mali. Bibliothèque Nationale de France. Gallica digital library. www.bnf.fr

The colony of Togo

The colony of Togo or Togoland, which was under German colonial rule from 1884 to 1914, became a territory under French and British trusteeship from 1916 until it was handed over to France by the League of Nations. Following the defeat of Germany in World War I, the territories that formed the colony of Togo were divided between France and Britain. The first local budget of Togo was established in 1920 in accordance with the “Cablôgramme³⁶ N° 729 et 2755 du département des colonies”. Accordingly, tax collection in Togo was to conform to the Lomé Convention concluded between the two occupying powers. According to this agreement, the contracting parties were not allowed to levy capitation/poll taxes during the joint occupation until the League of Nations had officially decided on the assignment of the territories to France. I used the BSL of 1920, 1921, 1923, 1924, and 1925) to construct the data of Togo.

From 1920 Total Net Revenue = Direct taxes (\sum Impôt / Contributions sur Rôles) + Indirect Taxes (\sum Produits des exploitations industrielles + Droit d'enregistrement + Timbre) + Other revenues \sum (Domaines + Forêts + Produits percus sur ordre de recettes³⁷ + recettes extraordinaires)

³⁶ « Le projet de budget du Togo pour l'exercice 1920 a été établi en exécution des instructions câblogramme numéro 729 et 2755, des 13 et 30 décembre du département des colonies. Jusqu'à ce que le statut des territoires occupés ait été fixé par la Société des Nations et la remise effectuée à la France de la partie confiée à son administration, soit par mandat de ladite Société des Nations, soit sous une forme quelconque, le régime de perception du Togo doit rester fixé par l'accord de Lomé conclu entre les administrations Française et anglaise. Aux termes de cet accord, les parties contractantes s'interdisent de percevoir aucun impôt de capitation pendant le régime d'occupation commune. Le produit brut de toute perceptions de nature effectuées dans les deux zones est partagé par parties égales entre la France et l'Angleterre, sauf en ce qui concerne les recettes de douanes, du chemin de fer et du wharf dont le partage est effectué sur le produit net ».

See the “Budget local du Togo” of 1920, “Exposé des motifs, considérations générales”. The exposé read: Togo's draft budget for the 1920 financial year was drawn up in accordance with cable instructions number 729 and 2755 of December 13 and 30 from the department of colonies. Until the status of the occupied territories has been fixed by the League of Nations and the delivery to France of the part entrusted to its administration, either by mandate from the said League of Nations, or in some form, Togo tax collection system must remain fixed by the Lomé agreement concluded between the French and English administrations. Under the terms of this agreement, the contracting parties are prohibited from collecting any capitation tax during the period of common occupation. The gross product of all revenues collected in the two zones is shared in equal parts between France and England, except the receipts of customs, the railroad and the wharf which the sharing is carried out on the net proceeds.

³⁷ I excluded from « Produits percus sur ordre de recettes » all the subsidies (“Subventions”)

Table: Aggregation of the Revenue of the colony Togo 1920-1925

Year	Recettes Ordinaires						Autres Contributions						Total Net Revenue
	Contributions directes (CD) Direct taxes			Contributions Indirectes CI Indirect taxes			Produits divers des Contributions ordinaires Other revenues			Produits des recettes extraordinaires			
	Titre / Sect	Chap .	Art.	Titre / Sect	Chap .	Art.	Titre / Sect	Chap .	Art.	Titre / Sect	Chap .	Art.	
1920	1	1	3+4	1	2+3	(2)+(1)	1	4	1+...5	-	-	-	Σ Articles
1921	1	1	1+3+4	1	2+3	(1+2)*+(1+4)	1	4	2+...5	-	-	-	Σ Articles
1923 - 1925	1	1	1+3+4	1	2+3	(1+...4)+(1+4)	1	2+4+6	(5+6)+(2+...5)+(1)	-	-	-	Σ Articles

Source: Développement des Recettes 1920-1925. Compte définitif des recettes et des dépenses de la Colonie du Togo. Bibliothèque nationale de France. Gallica digital library Bibliothèque nationale. www.bnf.fr

Note: (1+2)*= consist of article 1 and 1' as well as article 2 and 2'

Note : The revenue of « Produits perçus sur ordres de recettes » in chapter 4 consists incomes of customs and excise duties, and those of industrial operations which amounted to 1012729. This income was collected from the British controlled zone. Therefore, I did not add its proportion of indirect tax to the computation of our indirect tax because it was classed in the French budget as a “Produits unique” under “Produits perçues sur ordres de recettes”. Here is how it was presented in the budget of 1920

British controlled zone:

Custom and Wharf revenue: 1904109 - 926471 (expenses of custom, Wharf, and railway) = 977638

Since there was no indication in the document as to how much was spent for railway charges, if I deducted the whole expenses from the custom and wharf revenue, the custom and wharf taxes will amount to 977638 fr.

Diverse revenues and income from licensing = 72228, Administrative fees = 52383, Railway revenues = 1356040, Revenue from Lands = 11897, Revenue from post and telegraphs = 48199, diverse incomes = 8777,

Total Taxes collected in British controlled zone = 2527142 from which 1263571 was to be given to the French in accordance to the Lomé convention.

From 1920 Police and prison Expenditures= Service d'administration générale (Personnel de police and Prisons : Police administrative et judiciaire, Etablissement pénitentiaire, Gendarmerie nationale, Gardes de cercles + (Matériel de police and prisons : Police administrative et judiciaire, Etablissement pénitentiaire, Gendarmerie nationale, Gardes de cercles)

Table: Aggregation of the Police and Prison Expenditures of the colony Togo 1920-1925

Year	Police and Prisons personnel/ Service d'administration générale		Police and Prison matériel/ Service d'administration générale		Police and Prison Expenditures
	Chapter	Article	Chapter	Article	
1920	4	6+10	5	6+9	Σ Articles
1921	4	6+10	5	5+6+9	Σ Articles
1923-1925	4	7+8+9	5	7+8+9	Σ Articles

Source : Développement des Recettes 1920 -1925. Compte définitif des recettes et des dépenses de la Colonie du Togo. Bibliothèque nationale de France. Gallica digital library Bibliothèque nationale. www.bnf.fr

Public Work Expenditures = Produits des exploitations industrielles (personnel + dépenses des exercices clos) + Produits des exploitations industrielles (Main-d'œuvre + dépenses des exercices clos) + Produits des exploitations industrielles (Matériel + dépenses des exercices clos) + Travaux publics (Entretiens, Neuves et réparations) → 1920 = [Ch. VIII (Art.6) + Ch. IX (Art.6) + Ch. X (6) + Ch. XI (1)]

Table: Aggregation of the Public Works Expenditures of the colony Togo 1920-1925

Year	Dépenses des exploitations industrielles personnel		Dépenses des exploitations industrielles Main-d'œuvre		Dépenses des exploitations industrielles Matériel		Travaux publics (Entretiens, Neuves et Réparations)		Public Works expenditures
	Chap.	Art.	Chap.	Art.	Chap.	Art.	Chap.	Art.	Σ Articles
1920	8	6	9	6	10	6	11	1	Σ Articles
1921	8	6	9	6	10	6	11	1+...4	Σ Articles
1923-1925	8	6	9	6	10	6	11	1+...6	Σ Articles

Source : Développement des Recettes 1920-1925. Compte définitif des recettes et des dépenses de la Colonie du Togo. Bibliothèque nationale de France. Gallica digital library Bibliothèque nationale. www.bnf.fr

“Dépenses des exercices clos travaux public 1923-1924= [(3033+2552 - personnel) + (3677+3174 -matériel)]”

“Dépenses des exercices clos travaux public 1925= [(1867 - personnel) + (2394 - matériel)]”

From 1920, Healthcare Expenditures = Service d'intérêt Social et Économique (Personnel : service de santé, infirmerie, service sanitaire, hygiène public, assistance médicale indigène) + (Matériel : service de santé, infirmerie, service sanitaire, hygiène public, assistance médicale indigène, assistance publique indigène)

Table: Aggregation of the Healthcare Expenditures of the colony Togo 1920-1925

Year	Assistance publique, service de santé et service sanitaire / <i>Service d'intérêt Social et Économique</i>				Healthcare Expenditures
	Personnel		Matériel		
	Chapter	Article	Chapter	Article	
1920	12	1+...5	13	1+...6	Σ Articles
1921	12	1+2+3	13	1+...6	Σ Articles
1923-1925	12	1+2+3+4	13	1+...6	Σ Articles

Source : Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de la Colonie du Togo. Bibliothèque nationale de France. Gallica digital library. www.bnf.fr

Education Expenditures = Service d'intérêt Social et Économique (Personnel : Instruction publique, bibliothèque et musées, Enseignement professionnel) + (Matériel : Instruction publique, bibliothèque et musées, Enseignement professionnel) → 1920 = [Ch. XII(Art.6) + Ch. XII (Art.9+10)]

Table: Aggregation of the Education Expenditures of the colony Togo 1920-1925

Year	Instruction publique (primaire et professionnelle / <i>Service d'intérêt Social et Économique</i>				Education Expenditures
	Personnel		Matériel		
	Chapter	Article	Chapter	Article	
1920-1921	12	6	13	7	Σ Articles
1923-1924	12	7	13	7+9	Σ Articles
1925	12	7+9	13	7+9	Σ Articles

Source : Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de la Colonie du Togo. Bibliothèque nationale de France. Gallica digital library.

Justice Expenditures = Administration des cercles – Justice Indigène (Personnel + Matériel)
1907 = [Ch. V. (Art.1)]

From 1919 Justice Expenditures = Service d'administration générale (Personnel + Matériel)

Table: Aggregation of the Education Expenditures of the colony Togo 1920-1925

Year	Justice Indigène / <i>Service d'administration générale</i>				Justice Expenditures
	Personnel		Matériel		
	Chapter	Article	Chapter	Article	
1920	4	5	-	-	∑ Articles
1921	4	5	5	4	∑ Articles
1923-1925	4	5+6	5	5+6	∑ Articles

Source : Développement des Dépenses 1907-1925. Compte définitif des recettes et des dépenses de la Colonie du Togo. Bibliothèque nationale de France. Gallica digital library. www.bnf.fr

Note : In 1923 and 1924, the expenditures related to justice expenses consisted of the spending on Europeans and Africans in the form of personnel and materials.

“Dépenses des exercices clos police et justice 1923-1924= [(3089+3626 - personnel) + (4667+2242 - matériel)]”

“Dépenses des exercices clos police et justice 1925= [(3395 - personnel) + (3850 - matériel)]”

I deducted all incomes related to subventions and reserve funds from the total revenue of the colony.

Table: Subsidies received, and Revenue collected from the reserve funds of the colony of Togo

Year	Subventions	Fonds de reserves
1920	-	-
1921	-	-
1922	-	-
1923	-	400000
1924	-	1300000
1925		7500000

Source : Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de la Colonie de Togo. Bibliothèque Nationale de France. Gallica digital library. www.bnf.fr

Afrique Equatorial (French East Africa)

The Colony of Gabon

the French involvement in Gabon occurred as a countermeasure to British trading activities in the Gulf of Guinea in the 1800s. After decades of brinkmanship due to commercial activities in the region with rival competitors such as the British, Americans, and Germans, France established Fort d'Aumale in 1843 to protect its trading interests in the region and encouraged the arrival of Christian (Roman Catholic) missionaries in the region in 1844 to spread French cultural values among the natives.

This was followed by the establishment of a French settlement in 1849, giving rise to the town of Libreville, inhabited mainly by freed slaves. Following de Brazza's³⁸ exploratory mission, France slowly expanded its control in the region, eventually leading to the establishment of the colony of Gabon in 1910 as part of the colonial federation of Equatorial Africa. I extracted the data for Gabon from the BSL and the CDRD of "Afrique Équatoriale Française" (French Equatorial Africa).

Total Net revenue* = **Direct Taxes** (\sum Contributions Directes) + **Indirect Taxes** (\sum Contributions Indirectes + Droits d'enregistrement et de greffe+ produits des postes et télégraphes) + **Other Taxes*** (\sum Produits Divers excluding \sum Postes and Télégraphes) Or **Total Net Revenue** = Total Revenue – Subvention – Fonds de réserve. → **1907** = [Ch.(1+3) + Ch.2(3)*+ Ch.2(A)*]

From 1919 Total Net Revenue = Direct taxes (\sum Contributions sur Rôles) + Indirect Taxes (\sum Produits des exploitations industrielles + Droit d'enregistrement + Timbre) + Other revenues \sum (Domaines + Forêts + Produits percus sur ordre de recettes³⁹ + recettes extraordinaires)

³⁸ Pierre Savorgnan de Brazza was a French-Italian explorer who undertook several missionary expeditions to Equatorial Africa between the 1870s and 1885 on behalf of the French "Société de Géographie." For more details on de Brazza's exploratory missions and French colonization in the area, see the following link. <https://www.britannica.com/place/Ogooue-River>

³⁹ I excluded from « Produits percus sur ordre de recettes » all the subsidies and contingent contributions ("Subventions – Contingents")

Table: Aggregation of the Revenue of the colony of Gabon 1907-1925

Year	Recettes Ordinaires						Autres Contributions						Total Net Revenue
	Contributions directes (CD)			Contributions Indirectes CI)			Produits divers des Contributions ordinaires			Produits des recettes extraordinaires			
	Titre/ Sect	Chap.	Art.	Titre/ Sect	Chap.	Art.	Titre/ Sect	Chap.	Art.	Titre Sect	Chap.	Art.	
1907		1+3	-		2(3)*	-		2(A)*	-	-	-	-	Σ Chapter
1908		1+3	-	-	2(1+2+4)*	-	-	2(A)*	-	-	-	-	Σ Chapter
1910-1912	-	1	-	-	2(2)*	-	-	2(A)**+5	-	-	-	-	Σ Chapter
1913	-	1	-	-	2(2)*	-	-	2(A)**+4	-	-	-	-	Σ Chapter
1919	1	1	1+...4	1	2+3	2(2)* + (1+...4)	1	2+4+ 6	2(A)+(2+3+4) + (1)	-	-	-	Σ Articles
1921	1	1	1+...4	1	2+3	2(2)* + (1+...4)	1	2+4+ 6	2(A)+(2+...5) + (1)	-	-	-	Σ Articles
1922	1	1	1+...4	1	2+3	2(2)* + (2+3+4)	1	2+4 + 6	2(A)+(2+...5) + (1)	-	-	-	Σ Articles
1923	1	1	1+...4	1	2+3	2(2)* + (2+3)	1	2+4 + 6	2(A)+(2+...5) + (1)	-	-	-	Σ Articles
1924	1	1	1+...4	1	2+3	2(2)* + (2)	1	2+4 + 6	2(A)+(2+...5) + (1)	-	-	-	Σ Articles
1925	1	1	1+...4	1	2+3	2(2)* + (2+3)	1	2+4 + 6	2(A)+(2+...5) + (1)	-	-	-	Σ Articles

Source : Développement des Recettes 1907 - 1925. Compte définitif des recettes et des dépenses de la Colonie du Gabon. Bibliothèque nationale de France. Gallica digital library Bibliothèque nationale. www.bnf.fr

Note1: In 1907, 1908, the capitation revenue, even though a direct tax, was recorded under a separate rubric called “Perception Personnel sur les indigènes”. But from 1910 the term “Impôt de capitation” was again used under the rubric “Contributions directes. Furthermore, there was no rubric for indirect tax, but the incomes related to that variable were recorded under “Divers produits et Revenus”. See Chapter 2 in “Développement des recettes”. Note2: 2(3)*= First 3 items of chapter 2; 2(A)*= All the items of chapter 2 excluding the first 3 components. 2(1+2+4)*= Items 1,2, and 4 of chapter 2; 2(2)*= First two items of chapter 2; 2(A)**= All the items of chapter 2 excluding the first 2 components; 2(A)= All the items of chapter 2 excluding the items of 2(2)*; Note3= I did not find a CDRD nor a BSL for the colony of Gabon in 1920.

From 1919 Police and prison Expenditures = Service de police et prisons (personnel + Matériel) → 1907 = Ch. VII. **From 1919, Police and prison Expenditures** = Service d'administration générale (Établissements pénitentiaires et la garde civile et régionale: Personnel + Matériels)

Table: Aggregation of the Police and Prison Expenditures of the colony of Gabon 1907-1925

Year	Police and Prisons personnel/ Service d'administration générale		Police and Prison matériel/ Service d'administration générale		Police and Prison Expenditures
	Chapter	Article	Chapter	Article	
1907	7	7(.)*	7	7(1)*	Σ Chapter
1908	7	7(1)*	7	7(2+3)*	Σ Chapter
1910-1913	6	-	7	--	Σ Chapter
1919	4	6+8	5	5+7	Σ Articles
1921	4	5+7	5	4+6	Σ Articles
1922	4	7	5	4+6	Σ Articles
1923-1924	4	5+7	5	4+6	Σ Articles
1925	4	7	5	4+6	Σ Articles

Source : Développement des Recettes 1907 - 1925. Compte définitif des recettes et des dépenses de la Colonie du Gabon. Bibliothèque nationale de France. Gallica digital library Bibliothèque nationale. www.bnf.fr

Note1: 7(.)*= Untitled paragraph; 7(1)*= paragraph 1 of chapter 7; 7(2+3)*= paragraph 2 and 3 of chapter 7. **Note :** The expenditures related to the expenditures are grouped under Chapter 7 of “Développement des dépenses” in the CDRD OF 1907; where paragraph 3 indicate “Dépenses des exercices clos” of that year. **Note3:** The CDRD of 1910 shows a change in the denotation of the police and prisons rubric. The new rubric was called « Personnel de la garde régionale et de prisons ». I recorded the expenses as the expenditures for the police and prisons. **Note:** I did not find a CDRD nor a BSL for the colony of Gabon:

Public Work Expenditures = Travaux public (personnel + Matériel + Entretien, Nouveaux travaux) → Ch. XIII + Ch. XIV

Public Work Expenditures = Produits des exploitations industrielles (**personnel + dépenses des exercices clos**) + Produits des exploitations **industrielles (Main-d'œuvre + dépenses des exercices clos)** + Produits des exploitations **industrielles (Matériel + dépenses des exercices clos)** + Travaux publics (**Entretiens, Neuves et réparations**) → 1919 = [Ch. VIII (Art.6) + Ch. IX (Art.6) + Ch. X (6) + Ch. XI (1)]

Table: Aggregation of Public Works Expenditures of the colony of Gabon 1907-1925

Year	Dépenses des exploitations industrielles personnel		Dépenses des exploitations industrielles Main-d'œuvre		Dépenses des exploitations industrielles Matériel		Travaux publics (Entretiens, Neuves et Réparations)		Public Works expenditures
	Chap.	Art.	Chap.	Art.	Chap.	Art.	Chap.	Art.	Σ Articles
1910-1911	13	1	-	-	14	1	14	2+3	Σ Articles
1912	13	1	-	-	14	1	14	2	Σ Articles
1913	13	1	-	-	14	1	14	2+3+4	Σ Articles
1919	8	3	9	3	10	3	-	-	Σ Articles
1921-1923	8	3	9	3	10	3	-	-	Σ Articles
1924	8	3	-	-	10	3	-	-	Σ Articles
1925	8	3	9	3	-	-	-	-	Σ Articles

Source: Développement des Dépenses 1907-1925. Compte définitif des recettes et des dépenses de la Colonie du Gabon. Bibliothèque Nationale de France. Gallica digital library. www.bnf.fr

Note: There was no rubric assigned to public works expenditure in the CDRD OF 1907 and 1908. However, I found some spending related to public works under “Dépenses diverses (éclairage de Libreville et des services)” which I recorded in my data. See chapter 10 in “Développement des dépenses”.

Healthcare Expenditures = Service de santé (personnel + matériel) → 1907 = [Ch. V (Paragraph 0) + (Ch. V (Paragraph 1)]. **From 1919, Healthcare Expenditures** = Service d'intérêt Social et Économique (Personnel : service de santé, infirmerie, service sanitaire, hygiène public, assistance médicale indigène) + (Matériel : service de santé, infirmerie, service sanitaire, hygiène public, assistance médicale indigène, assistance publique indigène)

Table: Aggregation of the Healthcare Expenditures of the colony of Gabon 1907-1925

Year	Assistance publique, service de santé et service sanitaire / <i>Service d'intérêt Social et Économique</i>				Healthcare Expenditures
	Personnel		Matériel		
	Chapter	Article	Chapter	Article	
1907	5	5(.)*	5	5(1)*	Σ Chapter
1908	5	5(1)*	5	5(2+3)*	Σ Chapter
1910-1912	10	-	11	-	Σ Articles
1913	10	1+2	11	-	Σ Articles
1919	11	1+2+3+5	12	1+2	Σ Articles
1921	11	1+2+3	12	1+2+4	Σ Articles
1922	11	1+2+3	12	1+2+4	Σ Articles
1923	11	1+2+3	12	1+2+5	Σ Articles
1924	11	1+2+3+4+5	12	1+2+4+5	Σ Articles
1925	-	-	12	1+2+3+4+6	Σ Articles

Source : Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de la Colonie du Gabon. Bibliothèque nationale de France. Gallica digital library. www.bnf.fr

Note1 : 5(.)*= Untitled paragraph. **Note2 :** The expenditures related to the healthcare are grouped under Chapter 5 of “Développement des dépenses” in the CDRD of 1908, where paragraph 3 indicates “Dépenses des exercices clos” of that year. **5(1)***= paragraph 1 of chapter 1; **5(2+3)***= paragraph 2 and 3 of chapter 1

Education Expenditures= Instruction public (personnel + Matériel) → 1910 Ch. XII

Education Expenditures = Service d'intérêt Social et Économique (Personnel : Instruction publique, bibliothèque et musées, Enseignement professionnel) + (Matériel : Instruction publique, bibliothèque et musées, Enseignement professionnel) → 1920 = [Ch. XII(Art.6) + Ch. XII (Art.9+10)]

Table: Aggregation of the Education Expenditures of the colony of Gabon 1907-1925

Year	Instruction publique (primaire et professionnelle / <i>Service d'intérêt Social et Économique</i>)				Education Expenditures
	Personnel		Matériel		
	Chapter	Article	Chapter	Article	
1910-1911	12	-	-	-	\sum Chapters
1912-1913	12	1	12	2	\sum Chapters
1919	11	6+7	12	6+7	\sum Articles
1921	11	6+7	12	6+7	\sum Articles
1922-1924	11	7	12	6+7	\sum Articles
1925	11	-	12	6+7	\sum Articles

Source : Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de la Colonie du Gabon. Bibliothèque Nationale de France. Gallica digital library.

Note: There was no rubric assigned to education expenditure in the CDRD OF 1907 and 1908. However, I find a spending related to Education under “Dépenses imprévues (Ecole de Kango)” I recorded in my data. See chapter 10 in “Développement des dépenses”. The data of the public finance for the Year 1909 was not available.

Justice Expenditures = Administration des cercles – Justice Indigène (Personnel + Matériel)
1907 = [Ch. V. (Art.1)]

From 1919 Justice Expenditures = Service d'administration générale (Personnel + Matériel)

Table: Aggregation of the Justice Expenditures of the colony of Gabon 1907-1925

Year	Justice Indigène / <i>Service d'administration générale</i>				Justice Expenditures
	Personnel		Matériel		
	Chapter	Article	Chapter	Article	
1907					∑ Articles
					∑ Articles
					∑ Articles

Source: Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de la Colonie du Gabon. Bibliothèque nationale de France. Gallica digital library. www.bnf.fr

Note : There was no rubric or expenses related to Justice in the CDRD of the local government of Gabon in 1907, 1908, 1910, 1911, 1912, 1913, 1919, 1921, 1922, 1923, 1924 and 1925.

However, I collected added some expenses related to the Justice expenditure variable for the colony of Gabon for the years 1907, 1908, 1910, 1911, and 1913. These expenditures include:

1-) "Solde d'indemnités pour Prévôt et pharmacien", amounting to 6928.10 Fr. in 1907. Note that "in the French system, the "prévôt" was an administrator with judicial powers who could also exercise several administrative powers. "Suvention à l'ajudicatuer" (Adjudicator) in the amount of 1200 Fr. (See Ch. 5 – Service De Santé: second item). <https://www.cnrtl.fr/definition/pr%C3%A9v%C3%B4t>

2-) "Suvention à l'ajudicatuer" (Adjudicator) in the amount of 1200 Fr. In 1908. (See Ch. 10 – Dépenses Diverse: item 9).

3-) "Suvention à l'ajudicatuer" (Adjudicator) in the amount of 1810 Fr. in 1910 (See Ch. 15 – Observations: item 8).

4-) "Frais de Justice criminelle" (Criminal Justice expenses), and "Remise au Greffiers" (Clerk fee) amounting to 103.41 Fr. + 429.51 Fr. in 1911. (See Ch. 18 – Observations Dépenses Imprévues: item 8 and 9).

5-) "Frais de Justice" (Justice expenses) amounting to 4.60 in 1913. (See Ch. 18 – Observations Dépenses Imprévues: item 9).

I deducted all incomes related to subventions and reserve funds from the total revenue of the colony.

Table: Subsidies received, and Revenue collected from the reserve funds of the colony of Togo

Year	Subventions	Fonds de reserves
1907	-	298000
1908	-	68376,11
1909	-	-
1910	1200000	27729,70
1911	1200000	-
1912	1175000	-
1913	1175000	-
1919	871923,43	-
1921	1827298,01	862422,27
1922	2688611,61	6027,91
1923	1462000	-
1924	1470000	-
1925	-	-

Source : Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de la Colonie de Gabon. Bibliothèque Nationale de France. Gallica digital library. www.bnf.fr

Note: I subtracted from the total revenue of 1919 all the subsidies and contribution from other colonies towards the budget of the colony of Gabon.

The Colony of French Congo (“Moyen Congo” – Middle Congo)

The French colony of Congo began in Brazzaville following the protectorate agreement between de Brazza and the Bateke people under the leadership of King Iloo Makoko in 1880. At one point in time the colony of Congo was composed of part of Gabon and Oubangui-Chari, now the Central African. However, after the ratification of the protectorate agreement between the Brazza and the Bateke by the law of November 30, 1882, the territory was officially recognised as a French colony. But it was not until 1910 that the “Moyen Congo” became part of the federal colony of Equatorial Africa. (See Histoire militaire des colonies, pays de protectorat et pays sous mandat. 7, in Gallica retrieved in Gallica digital library. [file:///C:/Users/sangare/Downloads/Histoire_militaire_des_colonies_pays_\[...\]Denis_Maurice_bpt6k5658822n.pdf](file:///C:/Users/sangare/Downloads/Histoire_militaire_des_colonies_pays_[...]Denis_Maurice_bpt6k5658822n.pdf))

Total Net revenue* = Direct Taxes (Σ Contributions Directes) + **Indirect Taxes** (Σ Droits d’enregistrement et de greffe+ produits des postes et télégraphes) + **Other Taxes*** (Σ Produits Divers excluding Σ Postes and Télégraphes) Or **Total Net Revenue** = Total Revenue – Subvention – Fonds de réserve. → **1907** = [Ch.(1+3) + Ch.2(3)*+ Ch.2(A)*]

From 1919 Total Net Revenue = Direct taxes (Σ Contributions sur Rôles) + Indirect Taxes (Σ Produits des exploitations industrielles + Droit d’enregistrement + Timbre) + Other revenues (Σ (Domaines + Forêts + Produits percus sur ordre de recettes⁴⁰ + recettes extraordinaires)

Table: Aggregation of the Revenue of the colony of French Congo 1907-1925

Year	Recettes Ordinaires						Autres Contributions						Total Net Revenue
	Contributions directes (CD)			Contributions Indirectes (CI)			Produits divers des Contributions ordinaires			Produits des recettes extraordinaires			
	Titre/ Sect	Chap.	Art.	Titre/ Sect	Chap.	Art.	Titre/ Sect	Chap.	Art.	Titre/ Sect	Chap.	Art.	
1907-1908		1+3	-		2(3)*	-		2(A)*	-	-	-	-	Σ Chapter
1910-1913	-	1	-	-	2(2)*	-		2(A)*+5	-	-	-	-	Σ Chapter
1919	1	1	1+...4	1	2+3	(1+2) +(1+...4)	1	2+4+6	(4+5)+ (2+...5)+ (1)	2	8	1	Σ Chapter
1921-1922	1	1	1+...4	1	2+3	(1+2) +(3)	1	2+4+6	(4+5)+ (2+...5)+(1)	-	-	-	Σ Chapter
1923-1925	1	1	1+...3	1	2	2(2)*	1	2+4+6	2(A)+(2+...5) + (1)	-	-	-	Σ Chapter

Source :Développement des Recettes 1907-1925. Compte définitif des recettes et des dépenses de la Colonie du Moyen-Congo. Bibliothèque nationale de France. Gallica digital library Bibliothèque nationale. www.bnf.fr

Note1: In 1907, 1908, the capitation revenue, even though a direct tax, was recorded under a separate rubric called “Perception Personnel sur les indigènes”. But from 1910 the term “Impôt de capitation” was again used under the rubric “Contributions directes. Furthermore, there was no rubric for indirect tax, but the incomes related to that

⁴⁰ I excluded from « Produits percus sur ordre de recettes » all the subsidies (“Subventions”)

variable were recorded under “Divers produits et Revenues”. See Chapter 2 in “Développement des recettes”. **Note2: 2(3)***= The first 3 items of chapter 2; **2(A)***= All the items of chapter 2 excluding the items of **2(3)***; **2(2)***= The first 2 items of chapter 2;

From 1919 Police and prison Expenditures = Service d’administration générale (Personnel de police and prisons: Police administrative et judiciaire, Etablissement pénitentiaire, Gendarmerie nationale, Gardes de cercles + (Matériel de police and prisons : Police administrative et judiciaire, Etablissement pénitentiaire, Gendarmerie nationale, Gardes de cercles) → 1907 = [Ch. VI (paragraph 1) + Ch. VI (Paragraph 2)]

Table: Aggregation of the Police and Prison Expenditures of the colony of French Congo 1907-1925

Year	Police and Prisons personnel/ Service d’administration générale		Police and Prison matériel/ Service d’administration générale		Police and Prison Expenditures
	Chapter	Article/ Paragraph	Chapter	Article/ Paragraph	
1907-1908	6	6(1)*	6	6(2)*	Σ Articles
1910-1913	6	-	7	-	Σ Chapters
1919	4	8	5	5+7	Σ Articles
1921	4	8	5	4+6	Σ Articles
1922-1923	4	7	5	4+6	Σ Articles
1924-1925	4	5+7	5	4+6	Σ Articles

Source : Développement des Recettes 1907-1925. Compte définitif des recettes et des dépenses de la Colonie du Moyen-Congo. Bibliothèque nationale de France. Gallica digital library Bibliothèque nationale. www.bnf.fr

Note1 : 6(1)*= paragraph 1 of chapter 6; **6(2)***= paragraph 1 of chapter 6; **Note2 :** The expenditures related to the expenditures are grouped under Chapter 6 of “Développement des dépenses” in the CDRD of 1907; where paragraph 1 indicate the personnel expenses and paragraph 2 the material cost. **Note3:** The CDRD of 1910 shows a change in the denotation of the police and prisons rubric. The new rubric is called « Personnel de la garde régionale et de prisons ». I recorded the expenses as the expenditures for the police and prisons.

Public Work Expenditures = Travaux public (Personnel + Matériel + Entretien + Travaux neufs) → 1910 Ch. XIII + Ch. XIV

Public Work Expenditures – From 1919 = Produits des exploitations industrielles (**personnel + dépenses des exercices clos**) + Produits des exploitations **industrielles (Main-d’œuvre + dépenses des exercices clos)** + Produits des exploitations **industrielles (Matériel + dépenses des exercices clos)** + Travaux publics (**Entretien, Neufes et réparations**)

Table: Aggregation of the Public Works Expenditures of the colony of French Congo 1907-1925

Year	Dépenses des exploitations industrielles personnel		Dépenses des exploitations industrielles Main-d’œuvre		Dépenses des exploitations industrielles Matériel		Travaux publics (Entretien, Neufes et Réparations)		Public Works expenditures
	Chap.	Art.	Chap.	Art.	Chap.	Art.	Chap.	Art.	
1910-1913	13	1	-	-	14	1	14	2+3	Σ Articles
1919	8	3	9	3	10	3	-	-	Σ Articles
1921-1923	8	3	9	3	10	3	-	-	Σ Articles
1924	-	-	-	-	10	3	-	-	Σ Articles
1925	-	-	9	3	10	3	-	-	Σ Articles

Source : Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de la Colonie du Moyen-Congo. Bibliothèque Nationale de France. Gallica digital library. www.bnf.fr

Note: There was no rubric assigned to public works expenditure in the CDRD OF 1907 and 1908. However, I find some spending related to public works under “Dépenses diverses (éclairage de Brazzaville)” which I recorded in our data. See chapter 9 in “Développement des dépenses”.

Healthcare Expenditures = = Service de santé (personnel + matériel) → 1907 = [Ch. V (Paragraphe 1) + (Ch. V (Paragraphe 2+3))]

From 1919 Healthcare Expenditures = Service d'intérêt Social et Économique (Personnel : service de santé, infirmerie, service sanitaire, hygiène public, assistance médicale indigène) + (Matériel : service de santé, infirmerie, service sanitaire, hygiène public, assistance médicale indigène, assistance publique indigène)

Table: Aggregation of the Healthcare Expenditures of the colony of French Congo 1907-1925

Year	Assistance publique, service de santé et service sanitaire / <i>Service d'intérêt Social et Économique</i>				Healthcare Expenditures
	Personnel		Matériel		
	Chapter	Article/Pgraph	Chapter	Article/ Pgraph	
1907	5	5(1)*	5	5(2+3)*	Σ Chapter
1908	5	5(1)*	5	5(2)*	Σ Chapter
1910-1912	10	-	11	-	Σ Chapters
1913	10	-	11	1+2	Σ Articles
1919	11	1+2+3+4	12	1+2+4	Σ Articles
1921	11	1+2+3	12	1+2+5	Σ Articles
1922	11	1+2+3	12	1+2+3+5	Σ Articles
1923-1924	11	1+2+3	12	1+2+5	Σ Articles
1925	11	1+2+3	12	1+2+3+5	Σ Articles

Source : Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de la Colonie du Moyen-Congo. Bibliothèque Nationale de France. Gallica digital library. www.bnf.fr

Note1 : 5(1)*= paragraph 1 of chapter 5; 5(2+3)*0= paragraph 2 and 3 of chapter 5; **Note2** : The expenditures related to the healthcare are grouped under Chapter 5 of "Développement des dépenses" in the CDRD of 1907; where paragraph 1 indicate the personnel expenses and paragraph 2 the material cost and paragraph 3 the expenses of previous year which recorded under material for simplicity reasons.

Education Expenditures = Instruction public (personnel + Matériel) → 1910 Ch. XII

Education Expenditures = Service d'intérêt Social et Économique (Personnel : Instruction publique, bibliothèque et musées, Enseignement professionnel) + (Matériel : Instruction publique, bibliothèque et musées, Enseignement professionnel) → 1920 = [Ch. XII(Art.6) + Ch. XII (Art.9+10)]

Table: Aggregation of the Education Expenditures of the colony of French Congo 1907-1925

Year	Instruction publique (primaire et professionnelle / <i>Service d'intérêt Social et Economique</i>				Education Expenditures
	Personnel		Matériel		
	Chapter	Article	Chapter	Article	
1910-1911	12	-	-	-	Σ Chapters
1913	12	1	12	2	Σ Articles
1919	11	6+7	12	6+7	Σ Articles
1921	11	6	12	6+7	Σ Articles
1922-1925	11	6+7	12	6+7	Σ Articles

Source : Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de la Colonie du Moyen-Congo. Bibliothèque Nationale de France. Gallica digital library.

Note: There was no rubric assigned or spending recorded for education in the CDRD OF 1907 and 1908.

Justice Expenditures = Administration des cercles – Justice Indigène (Personnel + Matériel)
1907 = [Ch. V. (Art.1)]

From 1919 Justice Expenditures = Service d'administration générale (Personnel + Matériel)

Year	Justice Indigène / <i>Service d'administration générale</i>				Justice Expenditures
	Personnel		Matériel		
	Chapter	Article	Chapter	Article	
1919	-	-	5	4	∑ Articles
1921-1924	-	-	5	3	∑ Articles
1925	4	4	-	-	∑ Articles

Source : Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de la Colonie du Moyen-Congo. Bibliothèque nationale de France. Gallica digital library. www.bnf.fr

Note : There was no rubric assigned or spending recorded for justice in the CDRD OF 1907, 1908, 1910, 1911, 1912, 1913.

I deducted all incomes related to subventions and reserve funds from the total revenue of the colony.

Table: Subsidies received, and Revenue collected from the reserve funds of the colony of French Congo

Year	Subventions	Fonds de reserves
1907	-	184443,71
1908	10000	
1909	-	-
1910	900000	107280,06
1911	850000	73650,38 + 30000
1912	700000	7568
1913	700000	211536,54
1919	4795,75	
1921	560948,20 + 320,50*	1034161,47
1922	1230438,83 + 445	-
1923	888545,08	-
1924	280000	-
1925	700000+13000,60*	-

Source : Développement des Dépenses 1907 – 1925. Compte définitif des recettes et des dépenses de la Colonie de Moyen-Congo. Bibliothèque nationale de France. Gallica digital library. www.bnf.fr

Note1 : * Fonds de concours.

The colony of Central Africa Republic (Ubangi-Shari)

French colonization in Central Africa began with the establishment of several military outposts along the Bangui and Chari rivers in the late 1880s before the area was incorporated into the federal colony of Equatorial Africa in 1910. Ubangi-Shari was declared a French possession after the defeat of the Egyptians who had claimed the territory. The colony became an autonomous civilian possession in 1915 before seceding from the Chadian territories in 1920. The colony of Oubangui-Shari was renamed the Central African Republic after gaining independence in 1960.

Total Net revenue* = **Direct Taxes** (Σ Contributions Directes) + **Indirect Taxes** (Σ Contributions Indirectes + Droits d'enregistrement et de greffe+ produits des postes et télégraphes) + **Other Taxes*** (Σ Produits Divers excluding Σ Postes and Télégraphes) Or **Total Net Revenue** = Total Revenue – Subvention – Fonds de réserve. → **1907** = [Ch.(1+3) + Ch.2(3)*+ Ch.2(A)*]. **From 1919, Total Net Revenue** = Direct taxes (Σ Contributions sur Rôles) + Indirect Taxes (Σ Produits des exploitations industrielles + Droit d'enregistrement + Timbre) + Other revenues Σ (Domaines + Forêts + Produits percus sur ordre de recettes⁴¹ + recettes extraordinaires).

Table: Aggregation of the Revenue of the colony of Central African Republic 1907-1925

Year	Recettes Ordinaires						Autres Contributions						Total Net Revenue
	Contributions directes (CD)			Contributions Indirectes (CI)			Produits divers des Contributions ordinaires			Produits des recettes extraordinaires			
	Titre / Sect	Chap .	Art.	Titre / Sect	Chap .	Art.	Titre / Sect	Chap.	Art.	Titre / Sect	Chap.	Art.	
													Σ Chapter
1907-		1+3	-		2(3)*	-		2(A)*	-	-	-	-	Σ Chapter
1908		2+4	-		3(3)*	-		3(A)* + 6	-	-	-	-	Σ Chapter
1910-1911	-	1	-	-	3(1+3)*	-	-	3(A)** + 6					Σ Chapter
1912	-	1	-	-	2(2)*	-	-	2(A)** + 5	-	-	-	-	Σ Chapter
1919	1	1	1+...4	1	2+3	(1)+(1+2)	1	2+4+6	(3)+ (2+...5) +(1)	-	-	-	Σ Articles
1921	1	1	1+...4	1	2+3	(1)+(1+2)	1	2+4+6	(3+4)+ (2+...5) +(1)	-	-	-	Σ Articles
1922	1	1	1+...4	1	2+3	(1+2)+(1+2+3)	1	2+3+4	(3)+ (2+...5) +(1)	-	-	-	Σ Articles
1923-1925	1	1	1+...4	1	2+3	(1+2)+(1+2+3)	1	2+3+4	(3+4)+ (2+...5) +(1)	-	-	-	Σ Articles

Source :Développement des Recettes 1907 - 1925. Compte définitif des recettes et des dépenses de la Colonie du de l'Oubangui-chari. Bibliothèque nationale de France. Gallica digital library Bibliothèque nationale. www.bnf.fr

Note1: In 1907, 1908, the capitation revenue, even though a direct tax, was recorded under a separate rubric called “Perception Personnel sur les indigènes”. But from 1910 the term “Impôt de capitation” was again used under the rubric “Contributions directes. Furthermore, there was no rubric for indirect tax, but the incomes related to that variable were recorded under “Divers produits et Revenues”. See Chapter 2 in “Développement des recettes”.

⁴¹ I excluded from « Produits percus sur ordre de recettes » all the subsidies (“Subventions”)

Note2: 2(3)*= First 3 items of chapter 2; 2(A)*= All the items of chapter 2 excluding the items of . 2(3)*; 3(3)*= Item 3 of chapter 3 ; 3(A)*= All items of chapter 3 excluding the items of 3(3)*; 3(1+3)*= Items 1 and 3 of chapter 3; 3(A)**= All items of chapter 3 excluding 3(1+3)*; 2(2)*= The first 2 items of chapter 2; 2(A)**= All the items of chapter 2 excluding 2(2)*; **Note3**= There was no BSL or CDRD for the central African colony in 1912. At least I did not find it.

From 1919 Police and prison Expenditures = Service d'administration générale (Personnel de police and prisons: Police administrative et judiciaire, Etablissement pénitentiaire, Gendarmerie nationale, Gardes de cercles + (Matériel de police and prisons : Police administrative et judiciaire, Etablissement pénitentiaire, Gendarmerie nationale, Gardes de cercles) → 1907 = [Ch. VI (paragraph 1) + Ch. VI (paragraph 2)]

Table: Aggregation of the Police and Prison Expenditures Of the colony of Central African Republic 1907-1925

Year	Police and Prisons personnel/ Service d'administration générale		Police and Prison matériel/ Service d'administration générale		Police and Prison Expenditures
	Chapter	Article/ Pgraph	Chapter	Article/ Pgraph	
1907-1908	6	6(1)*		6(2)*	Σ Chapter
1910-1912	6	-	7	-	Σ Chapter
1919	4	8	5	7	Σ Articles
1921	4	7	5	6	Σ Articles
1922-1925	4	7	5	4+6	Σ Articles

Source : Développement des Recettes 1907 - 1925. Compte définitif des recettes et des dépenses de la Colonie de l'Oubangui-chari. Bibliothèque nationale de France. Gallica digital library Bibliothèque nationale. www.bnf.fr

Note : The expenditures related to the expenditures are grouped under Chapter 6 of “Développement des dépenses” in the CDRD of 1907; where paragraph 1 indicate the personnel expenses and paragraph 2 the material cost. **Note3:** The CDRD of 1910 shows a change in the denotation of the police and prisons rubric. The new rubric was called « Personnel de la garde régionale et de prisons ». I recorded the expenses as the expenditures for the police and prisons. **Note3**= I did not find no BSL or CDRD for the central African colony in 1913.

Public Work Expenditures = Travaux public (Personnel + Matériel + Entretien + Travaux neufs) → Ch. XIII + Ch. XIV → From 1907

Public Work Expenditures = Produits des exploitations industrielles (personnel + dépenses des exercices clos) + Produits des exploitations industrielles (Main-d'œuvre + dépenses des exercices clos) + Produits des exploitations industrielles (Matériel + dépenses des exercices clos) + Travaux publics (Entretien, Neuves et réparations) → From 1919 = [Ch. VIII (Art.6) + Ch. IX (Art.6) + Ch. X (6) + Ch. XI (1)]

Table: Aggregation of the Public Works Expenditures Of the colony of Central African Republic 1907-1925

Year	Dépenses des exploitations industrielles personnel		Dépenses des exploitations industrielles Main-d'œuvre		Dépenses des exploitations industrielles Matériel		Travaux publics (Entretien, Neuves et Réparations)		Public Works expenditures
	Chap.	Art.	Chap.	Art.	Chap.	Art.	Chap.	Art.	
1910-1912	13	1	-	-	14	1	14	2+3	Σ Articles
1919	8	3	9	3	10	3	-	-	Σ Articles
1921-1922	8	3	9	3	10	3	-	-	Σ Articles
1923	-	-	9	3	10	3	-	-	Σ Articles
1924	-	-	-	-	10	3	-	-	Σ Articles
1925	-	-	-	-	10	3	-	-	Σ Articles

Source : Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de la Colonie du de l'Oubangui-chari. Bibliothèque Nationale de France. Gallica digital library. www.bnf.fr

Note: There was no rubric assigned to public works expenditure or spending made in the CDRD of 1907 and 1908. But I found some expenses related the farming school (“Ferme-école”) in CDRD of 1908 which I recorded as

public works expenditures for that year. **Note3**= I did not find no BSL or CDRD for the central African colony in 1913.

Healthcare Expenditures = = Service de santé (personnel + matériel) → 1907 = [Ch. V (Paragraphe 1) + (Ch. V (Paragraphe 2+3)]. **From 1919, Healthcare Expenditures** = Service d'intérêt Social et Économique (Personnel : service de santé, infirmerie, service sanitaire, hygiène public, assistance médicale indigène) + (Matériel : service de santé, infirmerie, service sanitaire, hygiène public, assistance médicale indigène, assistance publique indigène)

Table: Aggregation of the Healthcare Expenditures Of the colony of Central African Republic 1907-1925

1907-1925

Year	Assistance publique, service de santé et service sanitaire / <i>Service d'intérêt Social et Économique</i>				Healthcare Expenditures
	Personnel		Matériel		
	Chapter	Article/Pgraph	Chapter	Article/ Pgraph	
1907-1908	5	5(1)*	5	5(2)*	∑ Chapter
1910-1912	10	-	11	-	∑ Chapter
1919	11	1+2+3+4+5	12	1+2+4+5	∑ Articles
1921	11	1+2+3+4+5+6	12	1+2+3+5	∑ Articles
1922	11	1+2+3	12	1+2+3+6	∑ Articles
1923	11	1+2+3	12	1+2+5+6	∑ Articles
1924	11	1+2+3	12	1+2+3+4+5+6	∑ Articles
1925	11	1+2+3+6	12	1+2+5+6	∑ Articles

Source : Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de la Colonie de l'Oubangui-chari. Bibliothèque Nationale de France. Gallica digital library. www.bnf.fr

Note : The expenditures related to the healthcare are grouped under Chapter 5 of "Développement des dépenses" in the CDRD of 1907; where paragraph 1 indicate the personnel expenses and paragraph 2 the material cost. **Note3**= I did not find no BSL or CDRD for the central African colony in 1913.

Education Expenditures = Service d'intérêt Social et Économique (Personnel : Instruction publique, bibliothèque et musées, Enseignement professionnel) + (Matériel : Instruction publique, bibliothèque et musées, Enseignement professionnel) → 1920 = [Ch. XII(Art.6) + Ch. XII (Art.9+10)]

Table: Aggregation of the Education Expenditures Of the colony of Central African Republic 1907-1925

Year	Instruction publique (primaire et professionnelle / <i>Service d'intérêt Social et Économique</i>				Education Expenditures
	Personnel		Matériel		
	Chapter	Article	Chapter	Article	
1910-1911	12	-	-	-	∑ Chapters
1912	12	1	12	2	∑ Articles
1919	11	6+7	12	6+7	∑ Articles
1921-1924	11	7+8	12	7+8	∑ Articles

Source : Développement des Dépenses 1907-1925. Compte définitif des recettes et des dépenses de la Colonie de l'Oubangui-chari. Bibliothèque Nationale de France. Gallica digital library.

Note: There was no rubric assigned or spending recorded for education in the CDRD OF 1907 and 1908 But I found some spending related to the farming school (“Ferme-école”). **Note3=** I did not find no BSL or CDRD for the central African colony in 1913.

Justice Expenditures = Administration des cercles – Justice Indigène (Personnel + Matériel)

1922 = [Ch. V. (Art.1)]

From 1919 Justice Expenditures = Service d’administration générale (Personnel + Matériel)

Table: Aggregation of the Justice Expenditures Of the colony of Central African Republic 1907-1925

Year	Justice Indigène / <i>Service d'administration générale</i>				Justice Expenditures
	Personnel		Matériel		
	Chapter	Article	Chapter	Article	
1922-1923	-	-	5	3	Σ Articles
					Σ Articles
					Σ Articles

Source : Développement des Dépenses 1907-1925. Compte définitif des recettes et des dépenses de la Colonie de l’Oubangui-chari. Bibliothèque Nationale de France. Gallica digital library. www.bnf.fr

Note : There was no rubric assigned or spending recorded for justice in the CDRD OF 1907, 1908, 1910, 1911, 1912, 1913, 1919, 1921, 1924 and 1925. **Note3=** I did not find no BSL or CDRD for the central African colony in 1913. I deducted all incomes related to subventions and reserve funds from the total revenue of the colony.

Table: Subsidies received, and Revenue collected from the reserve funds of the colony of Central African Republic

Year	Subventions	Fonds de reserves
1907	-	160000
1908	130000	
1909	-	-
1910	400000	217277,78
1911	-	-
1912	350000	102600,61
1913	-	-
1919	-	-
1921	884000	828000+764111,21
1922	1908858,17	285870,17
1923	1166193,76	-
1924	930000	-

Source : Développement des Dépenses 1907-1925. Compte définitif des recettes et des dépenses de la Colonie de l’Oubangui-chari. Bibliothèque Nationale de France. Gallica digital library. www.bnf.fr

The colony of Chad

French colonization in Central Africa began with the establishment of several military outposts along the Bangui and Chari rivers in the late 1880s before the area was incorporated into the federal colony of Equatorial Africa in 1910. Ubangi-Shari was declared a French possession after the defeat of the Egyptians who had claimed the territory. The colony became an autonomous civilian possession in 1915 before seceding from the Chadian territories in 1920. The colony of Oubangui-Shari was renamed the Central African Republic after gaining independence in 1960 (Debos, 2020).

Total Net revenue* = Direct Taxes (Σ Contributions Directes) + **Indirect Taxes** (Σ Contributions Indirectes + Droits d'enregistrement et de greffe+ produits des postes et télégraphes) + **Other Taxes*** (Σ Produits Divers excluding Σ Postes and Télégraphes) Or **Total Net Revenue** = Total Revenue – Subvention – Fonds de réserve. → **1907** = [Ch.(1+3) + Ch.2(3)*+ Ch.2(A)*]. **From 1919, Total Net Revenue** = Direct taxes (Σ Contributions sur Rôles) + Indirect Taxes (Σ Produits des exploitations industrielles + Droit d'enregistrement + Timbre) + Other revenues Σ (Domaines + Forêts + Produits perçus sur ordre de recettes⁴² + recettes extraordinaires)

Table: Aggregation of the Revenue of the colony of Chad 1907-1925

Year	Recettes Ordinaires						Autres Contributions						Total Net Revenue
	Contributions directes (CD)			Contributions Indirectes (CI)			Produits divers des Contributions ordinaires			Produits des recettes extraordinaires			
	Titre/ Sect	Chap.	Art.	Titre/ Sect	Chap.	Art.	Titre/ Sect	Chap.	Art.	Titre Sect	Chap.	Art.	
1907-		1+3	-		2(12 +13)*	-		2(A)*	-	-	-	-	Σ Chapter
1908		1+3	-		2(2)**	-		2(A)*	-	-	-	-	Σ Chapter
1910-1912	-	1	-	-	2(1)*	-	-	2(A)+3	-	-	-	-	Σ Chapter
1919	1	1	1+...4	1	3	1	1	2+4+6	(3)+ (3+4+5)+(1)	-	-	-	Σ Articles
1921	1	1	1+3	1	3	1	1	2+4+6	(3)+ (3+4+5)+(1)	-	-	-	Σ Articles
1922	1	1	1+3	1	2+3	(2)+(1)	1	2+4+6	(3)+ (3+4+5)+(1)	-	-	-	Σ Articles
1923	1	1	1+3 +4	1	2+3	(2)+(1)	1	2+4+6	(3)+ (2+3+4+5) +(1)	-	-	-	Σ Articles
1924	1	1	1+...4	1	2+3	(2)+(1)	1	2+4+6	(3)+ (2+3+4+5) +(1)	-	-	-	Σ Articles

Source: Développement des Recettes 1907 - 1925. Compte définitif des recettes et des dépenses de la Colonie du Tchad. Bibliothèque nationale de France. Gallica digital library Bibliothèque nationale. www.bnf.fr

⁴² I excluded from « Produits perçus sur ordre de recettes » all the subsidies (“Subventions”)

Note1: In 1907, 1908, the capitation revenue, even though a direct tax, was recorded under a separate rubric called “Perception Personnel sur les indigènes”. But from 1910 the term “Impôt de capitation” was again used under the rubric “Contributions directes. Furthermore, there was no rubric for indirect tax, but the incomes related to that variable were recorded under “Divers produits et Revenues”. See Chapter 2 in “Développement des recettes”. Likewise, a new item (« Taxe des colporteurs⁴³ ») was added to the rubric “Taxe personnelle sur les indigènes” which represented the capitation tax. **Note2:** 2(12+13)*= Items 12 and 13 of chapter 2; 2(A)*= All the items of chapter 2 excluding the items of 2(3)*; 2(2)**= The last two items of chapter 2; 2(1)*= Item 1 of chapter 2; 2(A)= All the items of chapter 2 excluding the items of 2(1)*. **Note3:** I did not find no BSL or CDRD for the central African colony in 1913.

Police and prison Expenditures = Police et prisons (personnel + matériel)) → 1907 = Ch. V.

From 1919, Police and prison Expenditures = Service d’administration générale (Personnel de police and prisons: Police administrative et judiciaire, Etablissement pénitentiaire, Gendarmerie nationale, Gardes de cercles + (Matériel de police and prisons : Police administrative et judiciaire, Etablissement pénitentiaire, Gendarmerie nationale, Gardes de cercles.

Table: Aggregation of the Police and Prison Expenditures of the colony of Chad 1907-1925

Year	Police and Prisons personnel/ Service d’administration générale		Police and Prison matériel/ Service d’administration générale		Police and Prison Expenditures
	Chapter	Article/ Pgraph	Chapter	Article/ Pgraph	
1907	5		5	-	Σ Chapters
1908	5	5(1)*	5	5(2)*	Σ Chapters
1910-1912	4	-	5	-	Σ Chapters
1919	4	8	5	5+7	Σ Chapters
1921	4	6	5	4+6	Σ Chapters
1922-1924	4	7	5	4+6	Σ Chapters

Source : Développement des Recettes 1907 - 1925. Compte définitif des recettes et des dépenses de la Colonie du Tchad. Bibliothèque nationale de France. Gallica digital library Bibliothèque nationale. www.bnf.fr

Note1 : 5(1)*= Item 1 of chapter 5; 5(2)*= Item 1 of chapter 5. **Note2 :** The personnel and material expenditures related to the police and prisons are conflated under Chapter of “Développement des dépenses” in the CDRD of 1907; where paragraph 1 indicate the personnel expenses and paragraph 2 the material cost. **Note3:** The CDRD of 1910 shows a change in the denotation of the police and prisons rubric. The new rubric is called « Personnel de la garde régionale et de prisons ». I recorded the expenses as the expenditures for the police and prisons. **Note3:** I did not find no BSL or CDRD for the central African colony in 1913.

Public Work Expenditures = Travaux public (personnel + Matériel+ Entretien + Travaux neufs) → Ch. XIII + Ch. XIV → From 1907

Public Work Expenditures = Produits des exploitations industrielles (personnel + dépenses des exercices clos) + Produits des exploitations industrielles (Main-d’œuvre + dépenses des exercices clos) + Produits des exploitations industrielles (Matériel + dépenses des exercices clos) + Travaux publics (Entretien, Neufes et réparations) → From 1919 = [Ch. VIII (Art.6) + Ch. IX (Art.6) + Ch. X (6) + Ch. XI (1)]

⁴³ A “Colporteur” is a hawker. A street vendor carrying his goods with him through towns and villages, typically advertising them by shouting.

Table: Aggregation of the Public Works Expenditures of the colony of Chad 1907-1925

Year	Dépenses des exploitations industrielles personnel		Dépenses des exploitations industrielles Main-d'œuvre		Dépenses des exploitations industrielles Matériel		Travaux publics (Entretiens, Neuves et Réparations)		Public Works expenditures
	Chap.	Art.	Chap.	Art.	Chap.	Art.	Chap.	Art.	
1910-1912	10	-	-	-	-	-	-	-	Σ Chapters
1919	8	3	9	3	10	3	-	-	Σ Articles
1921-1923	8	3	9	3	10	3	-	-	Σ Articles
1924	-	-	-	-	10	3	-	-	Σ Articles

Source : Développement des Dépenses 1907-1925. Compte définitif des recettes et des dépenses de la Colonie du Tchad. Bibliothèque Nationale de France. Gallica digital library. www.bnf.fr

Note: There was no rubric assigned to public works expenditure or spending made in the CDRD of 1907. **Note3=** I did not find no BSL or CDRD for the central African colony in 1913.

Healthcare Expenditures = Assistance médicale (personnel + matériel) → 1907 = Ch. IV.

From 1919 Healthcare Expenditures = Service d'intérêt Social et Économique (Personnel : service de santé, infirmerie, service sanitaire, hygiène public, assistance médicale indigène) + (Matériel : service de santé, infirmerie, service sanitaire, hygiène public, assistance médicale indigène, assistance publique indigène)

Table: Aggregation of the Healthcare Expenditures of the colony of Chad 1907-1925

Year	Assistance publique, service de santé et service sanitaire / <i>Service d'intérêt Social et Économique</i>				Healthcare Expenditures
	Personnel		Matériel		
	Chapter	Article/Pgraph	Chapter	Article/ Pgraph	
1907	4	-	4	-	Σ Chapters
1908	4	4(1)*	4	4(2)*	Σ Chapters
1910-1911	7	1+2	8	-	Σ Chapters
1912	7	-	8	-	Σ Chapters
1919	11	2+4	12	2+4	Σ Articles
1921	11	2	12	2+5	Σ Articles
1922	11	2+3	12	2+3	Σ Articles
1923	11	2	12	2+5	Σ Articles
1924	11	2+3	12	2+5	Σ Articles

Source : Développement des Dépenses 1907-1925. Compte définitif des recettes et des dépenses de la Colonie du Tchad. Bibliothèque Nationale de France. Gallica digital library. www.bnf.fr

Note1 : The personnel and material expenditures related to healthcare are conflated under Chapter 4. See "Développement des dépenses" in the CDRD of 1907. **Note2 :** 4(1)*= Item 1 of chapter 4; 4(2)*= Item 2 of chapter 4; **Note3=** I did not find no BSL or CDRD for the central African colony in 1913.

Education Expenditures = Instruction publique (Personnel + Matériel) → Ch. IX

Education Expenditures = Service d'intérêt Social et Économique (Personnel : Instruction publique, bibliothèque et musées, Enseignement professionnel) + (Matériel : Instruction publique, bibliothèque et musées, Enseignement professionnel) → 1920 = [Ch. XII(Art.6) + Ch. XII (Art.9+10)]

Table: Aggregation of the Education Expenditures of the colony of Chad 1907-1925

Year	Instruction publique (primaire et professionnelle / <i>Service d'intérêt Social et Economique</i>)				Education Expenditures
	Personnel		Matériel		
	Chapter	Article	Chapter	Article	
1910-1912	9	-	-	-	Σ Chapters
1919	11	6+7	12	6+7	Σ Articles
1921-1922	11	7+8	12	7+8	Σ Articles
1923	11	7	12	7+8	Σ Articles
1924	11	7	12	7	Σ Articles

Source : Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de la Colonie du Tchad. Bibliothèque Nationale de France. Gallica digital library.

Note: There was no rubric assigned or spending recorded for education in the CDRD OF 1907 and 1908. **Note3=** I did not find no BSL or CDRD for the central African colony in 1913.

Justice Expenditures = Administration des cercles – Justice Indigène (Personnel + Matériel)
1907 = [Ch. V. (Art.1)]

From 1919 Justice Expenditures = Service d'administration générale (Personnel + Matériel)

Table: Aggregation of the Justice Expenditures of the colony of Chad 1907-1925

Year	Justice Indigène / <i>Service d'administration générale</i>				Justice Expenditures
	Personnel		Matériel		
	Chapter	Article	Chapter	Article	
1919	4	5	-	-	Σ Articles
1921-1922	4	4	5	3	Σ Articles
1923-1924	4	4	-	-	Σ Articles

Source : Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de la Colonie du Tchad. Bibliothèque Nationale de France. Gallica digital library. www.bnf.fr

Note : There was no rubric assigned to justice in the CDRD OF 1907, 1908, 1910, 1911, 1912. But I found a payment made to two “Cadi”⁴⁴ in the CDRD of 1907. **Note3=** I did not find no BSL or CDRD for the central African colony in 1913.

I deducted all incomes related to subventions and reserve funds from the total revenue of the colony.

Table: Subsidies received, and Revenue collected from the reserve funds of the colony of Chad

Year	Subventions	Fonds de reserves
1907	-	-
1908	-	-
1909	-	-
1910	-	-
1911	-	-
1912	-	-
1913	-	-
1919	-	746215,59
1921	-	-
1922	-	-
1923	-	387000
1924	-	600000

Source : Développement des Dépenses 1907-1925. Compte définitif des recettes et des dépenses de la Colonie du Tchad. Bibliothèque Nationale de France. Gallica digital library. www.bnf.fr

⁴⁴ A „Cadi“, in English Qadi is a sort of magistrate of a Shari a court who performs civil, judicial and religious function strictly legislating and forming is judgment based on koranic scripture. See Emon, A. M., & Ahmed, R. (Eds.). (2018). The Oxford handbook of Islamic law. Oxford University Press.

The colony of Cameroon

Cameroon, like Togoland, was a former German colony from 1884 until World War I and was handed over to France and Great Britain as a mandate territory after the war. As a result of the partition of Cameroon, the French-speaking part of the territory became independent in 1960, while the English-speaking part, known as Anglophone Cameroon, became independent in 1961. However, the northern part of British Cameroon chose to become part of Nigeria after independence, while the southern Anglophone regions decided to remain with the Federated Republic of Cameroon, known as Francophone Cameroon. I obtained the data of Upper Volta from the BSL and CDRD.

From 1919, Total Net Revenue = Direct taxes (Σ Contributions sur Rôles) + Indirect Taxes (Σ Produits des exploitations industrielles + Droit d'enregistrement + Timbre) + Other revenues (Σ (Domaines + Forêts + Produits percus sur ordre de recettes⁴⁵ + recettes extraordinaires))

Table: Aggregation of the Revenue of the colony of Cameroon 1920-1925

Year	Recettes Ordinaires						Autres Contributions						Total Net Revenue
	Contributions directes (CD)			Contributions Indirectes CI)			Produits divers des Contributions ordinaires			Produits des recettes extraordinaires			
	Titre/ Sect	Chap.	Art.	Titre/ Sect	Chap.	Art.	Titre/ Sect	Chap.	Art.	Titre Sect	Chap.	Art.	
1920	1	1	1+...4	1	2+3	2(1+...4)* +(1+...4)	1	2+4	(5+6)+ (2+3+4)	-	-	-	Σ Articles
1922	1	1	1+...4	1	2+3	2(1+...4)* +(1+...4)	1	2+4 +6	(5+6)+ (1+...4) +(1)	-	-	-	Σ Articles
1923- 1924	1	1	1+2+3	1	2+3	2(1+...4)* +(1+...4)	1	2+4 +6	(5+6)+ (1+...4) +(1)	-	-	-	Σ Articles
1925	1	1	1+2+3	1	2+3	2(1+...5)* +(1+...4)	1	2+4	(5+6)+ (1+...4)	-	-	-	Σ Articles

Source : Développement des Dépenses 1920-1925. Compte définitif des recettes et des dépenses de la colonie de Cameroon. Bibliothèque nationale de France. Gallica digital library. www.bnf.fr

Note1 = 2(1+...4)* = Items 1 to 4 of chapter 2; 2(1+...5)* = Items 1 to 4 of chapter 2; **Note2:** In 1924 and 1925, the rubric "Impôt personnel" consisted of «Impôt personnel sur les Européens, Impôt de capitation sur les indigènes et taxes de voiries». I recorded the capitation revenues in my Excel table.

Police and prison Expenditures = Police et prisons (personnel + matériel)) → 1920 = Ch. IV (Art. 7+9) + Ch. V (Art. 5). **From 1920 Police and prison Expenditures** = Service d'administration générale (Personnel de police and prisons: Police administrative et judiciaire, Etablissement pénitentiaire, Gendarmerie nationale, Garde régionale + (Matériel de police and prisons: Police administrative et judiciaire, Etablissement pénitentiaire, Gendarmerie nationale, Garde régionale

Table: Aggregation of the Police and Prison Expenditures of the colony of Cameroon 1920-1925

Year	Police and Prisons personnel/ Service d'administration générale		Police and Prison matériel/ Service d'administration générale		Police and Prison Expenditures
	Chapter	Article	Chapter	Article	
1920	4	7+ 9	5	6+7	Σ Articles
1922	4	7+9	5	6+7	Σ Articles
1923-1924	4	7+9	5	5+6	Σ Articles
1925	4	7+9		5+7	Σ Articles

Source : Développement des Dépenses 1920 - 1925. Compte définitif des recettes et des dépenses de la colonie de Cameroon. Bibliothèque Nationale de France. Gallica digital library. www.bnf.fr

⁴⁵ I have excluded all subsidies ("subsidies") from the "Produits percus sur ordre de recettes ".

Note1 :A new item (“police and prisons”) is recorded in the CDRD of 1923, 1924 and 1925 (see Art.7 chap.4).

Note 2: A new item (“Gendarmerie indigène”) is recorded in the CDRD of 1925.

Public Work Expenditures = Travaux public (personnel + Matériel+ Entretien + Travaux neufs) → Ch. XIII + Ch. XIV. **Public Work Expenditures** = Dépenses des exploitations industrielles (personnel +dépenses des exercices clos) + Produits des exploitations industrielles (Main-d’œuvre +dépenses des exercices clos) + Produits des exploitations industrielles (Matériel +dépenses des exercices clos) + Travaux publics (Entretien, Neufes et réparations) → **1920** = [Ch. VIII (Art.3) + Ch. IX (Art.3) + Ch. X (3)]

Table: Aggregation of the Public Works Expenditures of the colony of Cameroon 1920-1925

Year	Dépenses des exploitations industrielles personnel		Dépenses des exploitations industrielles Main-d’œuvre		Dépenses des exploitations industrielles Matériel		Travaux publics (Entretien, Neufes et Réparations)		Public Works expenditures
	Chap.	Art.	Chap.	Art.	Chap.	Art.	Chap.	Art.	
1920	8	3	9	3	10	3	-	-	Σ Articles
1922	8	3	9	3	10	3	-	-	Σ Articles
1923-1924	8	3	9	3	10	3	-	-	Σ Articles
1925	8	4	9	4	10	4	-	-	Σ Articles

Source : Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de la Colonie du Cameroun. Bibliothèque nationale de France. Gallica digital library. www.bnf.fr

Healthcare Expenditures From 1920 = Service d’intérêt Social et Économique (Personnel : service de santé, service direction centrale, infirmerie, hôpitaux, Ambulance service sanitaire, hygiène public, assistance médicale indigène) + (Matériel : service de santé, service direction centrale infirmerie, hôpitaux, Ambulance service sanitaire, hygiène public, assistance médicale indigène, assistance publique indigène) → **1920** = Ch. XI (Art.1+2+3) +Ch. XII (Art.

Table: Aggregation of the Healthcare Expenditures of the colony of Cameroon 1920-1925

Year	<i>Service d'intérêt Social et Économique</i> Assistance publique, médicale service de santé, service direction centrale service sanitaire, Hygiène public, infirmerie, hôpitaux, Ambulance				Healthcare Expenditures
	Personnel		Matériel		
	Chapter	Article	Chapter	Article	
1920	11	1+2+3	12	1+2+3	∑ Articles
1922	11	1+2+3+4+5	12	1+2+3+4+5	∑ Articles
1923	11	1+2+3+4+5	12	1+2+3+4+5	∑ Articles

Source : Développement des Dépenses 1907-1925. Compte définitif des recettes et des dépenses de la Colonie du Cameroun. Bibliothèque nationale de France. Gallica digital library. www.bnf.fr

Note1: In 1924, the expenses related to Healthcare were not recorded in the local budget but in a separate budget annexed to local budget and was called “Budget annexe de la santé publique – Compte définitif des recettes et dépenses de 1924”. The income provisioned under that budget was 2211000 and the expenses but 2416066,96 was generated and the expenses incurred was **2274204,78** Francs, which I recorded as health expenditures for that year. I note that the revenue of healthcare annexed budget consisted **1500000** Francs of subsidy from Special budget. **Note2:** The expenditures related to healthcare were also recorded in an annexed budget. The respective revenue generated following the provisioned budget was 2381000 francs from which 1500000 francs was obtained from the special budget as subsidy. The corresponding expenditure was 2381000 francs which I recorded in my database.

Education Expenditures = Service d'intérêt Social et Économique (Personnel : Instruction publique, bibliothèque et musées, Enseignement technique professionnel) + (Matériel : Instruction publique, bibliothèque et musées, Enseignement professionnel) → **1920** = [Ch. XI (Art.4+5) + Ch. XII (Art.4+5)]

Table: Aggregation of the Education Expenditures of the colony of Cameroon 1920-1925

Year	Service d'intérêt Social et Économique (Enseignement publique, technique et professionnelle)				Education Expenditures
	Personnel		Matériel		
	Chapter	Article	Chapter	Article	
1920	11	4+5	12	4+5	Σ Chapters
1922	11	6+7	12	6+7	Σ Articles
1923	11	6+7	12	6+7	Σ Articles
1924	11	1+2	12	1+2	Σ Articles

Source : Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de la Colonie du Cameroun. Bibliothèque nationale de France. Gallica digital library.

Justice Expenditures From 1920 = Service d'administration générale – Justice Indigène (Personnel Européens et Indigènes + Matériel Européens et Indigènes) 1920 = [Ch. IV. (Art.6) + Ch. V (Art 5)]

Table: Aggregation of the Justice Expenditures of the colony of Cameroon 1920-1925

Year	Justice Indigène / <i>Service d'administration générale</i>				Justice Expenditures
	Personnel		Matériel		
	Chapter	Article	Chapter	Article	
1920	4	5+6	5	4+5	Σ Articles
1922	4	5+6	5	4+5	Σ Articles
1923-1925	4	5+6	5	4	Σ Articles

Source : Développement des Dépenses 1907-1925. Compte définitif des recettes et des dépenses de la Colonie du Cameroun. Bibliothèque Nationale de France. Gallica digital library. www.bnf.fr

Note : The expenses regarding rubric consisted of Europeans and local Africans justice expenditures in the form of personnel and materials.

Table: Subsidies received, and Revenue collected from the reserve funds of the colony of Cameroon

Year	Subventions	Fonds de reserves
1920	-	-
1922	328009,28*	4000000
1923	284860,42*	4000000
1924	-	8657274,60
1925	-	-

Source : Source : Développement des Dépenses 1907 - 1925. Compte définitif des recettes et des dépenses de la Colonie du Cameroun. Bibliothèque nationale de France. Gallica digital library. www.bnf.fr

Note : (*) = fonds de concours prélevé sur la caisse la caisse de réserves (revenue collected from the reserve funds for the purpose of subsidy).

The colony of Upper Volta (Present-day Burkina Fasso)

The French colony of Upper Volta, now Burkina Fasso, was initially a military territory after France conquered large parts of the region in 1896. These territories were then incorporated into Upper Senegal and Niger, a civilian colony, in 1905. After a strong anti-colonial movement between 1915 and 1916, Upper Volta became an independent colony in 1919. It was dissolved in 1932 and its territories were divided among neighbouring colonies such as French Sudan and Niger. However, after World War II the colony was reformed as an overseas territory and gained independence in 1960. I obtained the data for Upper Volta from the BSL and the CDRD.

Total Net Revenue from 1920 = Direct taxes (\sum Contributions sur Rôles) + Indirect Taxes (\sum Produits des exploitations industrielles + Droit d'enregistrement + Timbre) + Other revenues (\sum (Domaines + Forêts + Produits percus sur ordre de recettes⁴⁶ + recettes extraordinaires) . \rightarrow
1920 = [Ch.1(Art.1+2+3) + Ch.3 (Art.1+2)+ Ch.2+3 (Art.3)+(2+...5)]

Table: Aggregation of the Revenue of the colony of Upper Volta 1920-1925

Year	Recettes Ordinaires						Autres Contributions						Total Net Revenue
	Contributions directes (CD)			Contributions Indirectes (CI)			Produits divers des Contributions ordinaires			Produits des recettes extraordinaires			
	Titre/ Sect	Chap.	Art.	Titre/ Sect	Chap.	Art.	Titre/ Sect	Chap.	Art.	Titre Sect	Chap.	Art.	
1920	1	1	1+2+3	1	3	1+2	1	2+4	(3)+(2+...5)	-	-	-	Σ Chapter
1921-1922	1	1	1+2+3	1	2+3	(1+2)+ (1)	1	2+4+6	(3)+(2+...5) +(1)	-	-	-	Σ Chapter
1923-1924	1	1	1+2+3	1	2+3	(1+2) + (1+2+3)	1	2+4	(3)+(2+...5)	-	-	-	Σ Chapter
1925	1	1	1+2+3	1	2+3	(1+2) + (1+2+3)	1	2+4+6	(3+4)+(2+...5) +(1)	-	-	-	Σ Articles

Source :Développement des Recettes 1920-1925. Compte définitif des recettes et des dépenses de la Colonie de la Haute Volta. Bibliothèque nationale de France. Gallica digital library Bibliothèque nationale. www.bnf.fr

Note1= The “Impôt personnel”, which is comprised the capitation tax on local Africans, personal tax on Europeans and the “rachat des prestations” in 1920 were regrouped under the aforementioned item. I recorded the amount of the capitation tax. (Capitation tax=4735580; personal tax on Europeans=1290; Rachat des prestations=11173 Francs). **Note2**: The total revenue I calculated for 1922 amounted to 9093321.84 but the amount indicated in CDRD is 9091321,84 francs. **Note3** = I used the BSL of the colony of Burkina Fasso for 1923, 1924 and 1925 because the CDRD of those years were not available.

Police and prison Expenditures from 1920 = Service d’administration générale (Personnel de police and prisons: Police administrative et judiciaire, Etablissement pénitentiaire, Gendarmerie nationale, Gardes de cercles + (Matériel de police and prisons : Police administrative et judiciaire, Etablissement pénitentiaire, Gendarmerie nationale, Gardes de cercles \rightarrow 1920 = Ch. IV (Art.6+10) + Ch. V (Art.5+10

⁴⁶ I excluded from « Produits percus sur ordre de recettes » all the subsidies (“Subventions”)

Table: Aggregation of the Police & Prison Expenditures of the colony of Upper Volta 1920-1925

Year	Police and Prisons personnel/ Service d'administration générale		Police and Prison matériel/ Service d'administration générale		Police and Prison Expenditures
	Chapter	Article	Chapter	Article	
1920	4	6+10	5	5+9	Σ Chapters
1921-1922	4	6+7+10	5	6+9	Σ Chapters
1923-1925	4	6+7+10	5	5+6+9	Σ Chapters

Source: Développement des Recettes 1920-1925. Compte définitif des recettes et des dépenses de la Colonie de la Haute Volta. Bibliothèque nationale de France. Gallica digital library Bibliothèque nationale. www.bnf.fr

Public Work Expenditures from 1920= Produits des exploitations industrielles (**personnel +dépenses des exercices clos**) + Produits des exploitations **industrielles (Main-d'œuvre +dépenses des exercices clos)** + Produits des exploitations **industrielles (Matériel +dépenses des exercices clos)** + Travaux publics (**Entretiens, Neuves et réparations**) → 1920 = [Ch. VIII (Art.6) + Ch. IX (Art.6) + Ch. X (6) + Ch. XI (1)]

Table: Aggregation of the Public Works Expenditures of the colony of Upper Volta 1920-1925

Year	Dépenses des exploitations industrielles personnel		Dépenses des exploitations industrielles Main-d'œuvre		Dépenses des exploitations industrielles Matériel		Travaux publics (Entretiens, Neuves et Réparations)		Public Works expenditures
	Chap.	Art.	Chap.	Art.	Chap.	Art.	Chap.	Art.	
1920	8	6	-	-	10	5	11	1+2+4	Σ Articles
1921	8	6	-	-	10	6	11	1+2+4+5	Σ Articles
1922	8	6	9	6	10	6	11	1+2+3+4+5	Σ Articles
1923-1925	8	6	9	6	10	6	11	1+2+3+4	Σ Articles

Développement des Recettes 1920-1925. Compte définitif des recettes et des dépenses de la Colonie de la Haute Volta. Bibliothèque nationale de France. Gallica digital library Bibliothèque nationale. www.bnf.fr

From 1920 Healthcare Expenditures = Service d'intérêt Social et Économique (Personnel : service de santé, infirmerie, hôpitaux, ambulance, service sanitaire, hygiène public, assistance médicale indigène) + (Matériel : service de santé, infirmerie, hôpitaux, ambulance service sanitaire, hygiène public, assistance médicale indigène, assistance publique indigène) → Ch. XII (Art.1+...5) + Ch. XIII (Art.1+...5)

Table: Aggregation of the Healthcare Expenditures of the colony of Cameroon 1920-1925

Year	Service d'intérêt Social et Économique (Assistance publique, service de santé et service sanitaire hôpitaux, ambulance public, assistance médicale indigène, assistance publique indigène)				Healthcare Expenditures
	Personnel		Matériel		
	Chapter	Article	Chapter	Article	
1920-	12	1+2+3+4+5	13	1+2+3+4+5	Σ Articles
1921	12	1+4+5	13	1+2+3+4+5	Σ Articles
1922-1923	12	1+2+4+5	13	1+2+3+4+5	Σ Articles
1924-1925	12	1+2+3+4+5	13	1+2+3+4+5	Σ Articles

Source: Développement des Recettes 1920-1925. Compte définitif des recettes et des dépenses de la Colonie de la Haute Volta. Bibliothèque nationale de France. Gallica digital library Bibliothèque nationale. www.bnf.fr

Education Expenditures = Service d'intérêt Social et Économique (Personnel : Instruction publique, bibliothèque et musées, Enseignement professionnel) + (Matériel : Instruction publique, bibliothèque et musées, Enseignement professionnel) → 1920 = [Ch. XII(Art.6) + Ch. XIII (Art.6)]

Table: Aggregation of the Education Expenditures of the colony of Upper Volta 1920-1925

Year	<i>Service d'intérêt Social et Économique</i> (Instruction publique, bibliothèque et musées, Enseignement professionnel)				Education Expenditures
	Personnel		Matériel		
	Chapter	Article	Chapter	Article	
1920-1921	12	6	13	6	Σ Articles
1922	12	6+8	13	6	Σ Articles
1923-1925	12	6+8	13	6+7	Σ Articles

Source: Développement des Recettes 1920-1925. Compte définitif des recettes et des dépenses de la Colonie de la Haute Volta. Bibliothèque nationale de France. Gallica digital library Bibliothèque nationale. www.bnf.fr

Justice Expenditures = **Service d'administration générale** – Justice Indigène (Personnel + Matériel) 1920 = [Ch. IV. (Art.5)]

Table: Aggregation of the Education Expenditures of the colony of Upper Volta 1920-1925

Year	Justice Indigène / <i>Service d'administration générale</i>				Justice Expenditures
	Personnel		Matériel		
	Chapter	Article	Chapter	Article	
1920-1922	4	5	-	-	∑ Articles
1923-1925	4	5	5	4	∑ Articles

Source: Développement des Recettes 1920-1925. Compte définitif des recettes et des dépenses de la Colonie de la Haute Volta. Bibliothèque nationale de France. Gallica digital library Bibliothèque nationale. www.bnf.fr

I deducted all incomes related to subventions and reserve funds from the total revenue of the colony.

Table: Subsidies received, and Revenue collected from the reserve funds of the colony of Upper Volta

Year	Subventions	Fonds de reserves
1920	25360	-
1921	58640	-
1922	58640	550000
1923	500000	-
1924	-	-
1925	-	-

Développement des Recettes 1920-1925. Compte définitif des recettes et des dépenses de la Colonie de la Haute Volta. Bibliothèque nationale de France. Gallica digital library Bibliothèque nationale. www.bnf.fr

The colony of La Réunion

European interest in La Réunion began with the exploration of the inhabited island by the Portuguese in the 1500s, before it hosted a French supply station in the mid-17th century for ships sailing around the “Cap de Bonne-Esperance” to India. At that time, the island was inhabited mainly by enslaved natives from Africa brought to work on coffee and sugar plantations, and later by indentured laborers from East Africa, Southeast Asia, and from India. However, official claim to the island dates back to French colonial administrator Jacques Pronis in 1642, and official colonization of the site began in 1655 with settlement by the French East India Company (Moriarty, 1891).

In 1946, the territory became an overseas department and in 1974, a “Region de France” " However, despite the African Union's efforts to make the territory independent, this met with little approval from the majority of La Réunion's population, and the place remains part of the French overseas territory. Nevertheless, I extracted data from La Réunion from BSL and CDRD.

Total Net Revenue from 1907 = Directe taxes (Σ Contributions Direct + Douanes) + Indirectes Taxes (Σ Contributions Indirectes + Postes + Other taxes (Σ Enregistrement et Domaine + Produits Divers + recettes extraordinaires) = [Ch.1(Art.1) + Ch.2 (Art.1+2)+ Ch.+ (Art.1)+Ch4+Ch5+Ch6. **From 1920** → **Total Net Revenues** = **Direct taxes** (contributions directes / contributions sur rôle et assimilés) + **Indirect taxes** (Σ contributions perçues sur liquidation + Produits des exploitations industrielles) + **Other taxes** [Produits du Domaine + Autres Contributions / Produits et revenus divers + Reste à recouvrer + Recette d'ordre + budget / recettes extraordinaires (**excluding Emprunt and Prélèvement sur la caisse de réserve**)

Table: Aggregation of the Revenue of the colony of La Réunion 1907-1923

Year	Recettes Ordinaires						Autres Contributions						Total Net Revenue
	Contributions directes (CD)			Contributions Indirectes (CI)			Produits divers des Contributions ordinaires			Produits des recettes extraordinaires			
	Titre/ Sect	Chap	Art.	Titre/ Sect	Chap.	Art.	Titre/ Sect	Chap.	Art.	Titre Sect	Chap.	Art.	
1907		2	(1)+ (1+2)+(1)		3+4	(1)+1	1	1+5+6	(1)+(1)+(1)	-	-	-	Σ Chapter
1909 - 1910		1	(1)+ (1+2)+(1)		3+4	(1)+1	1	5+6	(1)+(1)+(1)	-	-	-	Σ Chapter
1920-1923		1	1		2+3	(1+2) + (1+2+3)		4+6	(1)+(1)	-	-	-	Σ Chapter

Développement des Recettes 1907 - 1923. Compte définitif des recettes et des dépenses de la Colonie La Réunion. Bibliothèque nationale de France. Gallica digital library Bibliothèque nationale. www.bnf.fr

Public Work Expenditures = Travaux public (personnel + Matériel+ Entretien + Travaux neufs) → from 1907 Ch. XVII ; from 1909-1910 ; from, 1920-1923, Ch. XX + Ch. 8

Public Work Expenditures = Dépenses des exploitations industrielles (**personnel + dépenses des exercices clos**) + Produits des exploitations **industrielles (Main-d'œuvre + dépenses des exercices clos)** + Produits des exploitations **industrielles (Matériel + dépenses des exercices clos)** + Travaux publics (**Entretien, Neufes et réparations**)

Table: Aggregation of the Public Works Expenditures of La Réunion 1907- 192 colony

Year	Dépenses des exploitations industrielles personnel		Dépenses des exploitations industrielles Main-d'œuvre		Dépenses des exploitations industrielles Matériel		Travaux publics (Entretien, Neufes et Réparations)		Public Works expenditures
	Chap.	Art.	Chap.	Art.	Chap.	Art.	Chap.	Art.	
1907	17	1+2*					-	-	Σ Articles
1909-1910	20	1+2+3**					-	-	Σ Articles
1920-1923	8	3	9	3	10	3	-	-	Σ Articles

Source: Développement des Recettes 1907 - 1923. Compte définitif des recettes et des dépenses de la Colonie La Réunion. Bibliothèque nationale de France. Gallica digital library Bibliothèque nationale. www.bnf.fr

Note : *=Personnel + Materials ; **= Personnel + Materials

Healthcare Expenditures From = Service d'intérêt Social et Économique (Personnel : **service de santé, service direction centrale, infirmerie, hôpitaux, Ambulance** service sanitaire, hygiène public, **assistance médicale indigène**) + (Matériel : service de santé, service direction centrale infirmerie, hôpitaux, Ambulance service sanitaire, hygiène public, assistance médicale indigène, assistance publique indigène).

Table: Aggregation of the Healthcare Expenditures of La Réunion 1907-1923 colony

Year	Service d'intérêt Social et Économique Assistance publique, médicale service de santé, service direction centrale service sanitaire, Hygiène public, infirmerie, hôpitaux, Ambulance				Healthcare Expenditures
	Personnel		Matériel		
	Chapter	Article/Section	Chapter	Article	
1907	23+24	(S.1+S.2)+(S.1+S.2)			Σ Articles
1909-1910	24+25	(S.1+S.2)+(S.1+S.2)			Σ Articles
1920-1923	11	1+2+3+4	12	1+2+3+4	Σ Articles

Source: Développement des Recettes 1907 - 1923. Compte définitif des recettes et des dépenses de la Colonie La Réunion. Bibliothèque nationale de France. Gallica digital library Bibliothèque nationale. www.bnf.fr

Education Expenditures = Service d'intérêt Social et Économique (Personnel : Instruction publique, bibliothèque et musées, Enseignement technique professionnel) + (Matériel : Instruction publique, bibliothèque et musées, Enseignement professionnel) → 1907= [Ch. XI (Art.4+5) + Ch. XII (Art.4+5)]

Table: Aggregation of the Education Expenditures of La Réunion 1907-1923 colony

Year	<i>Service d'intérêt Social et Économique</i> (Enseignement publique, technique et professionnelle)				Education Expenditures
	Personnel		Matériel		
	Chapter	Article/Section	Chapter	Article/Section	
1907	22	S.1 +S.2			∑ Chapters
1909-1910	23	S.1 +S.2			∑ Articles
1920-1923	11	5	12	5	∑ Articles

Source: Développement des Recettes 1907 - 1923. Compte définitif des recettes et des dépenses de la Colonie La Réunion. Bibliothèque nationale de France. Gallica digital library Bibliothèque nationale. www.bnf.fr

Justice Expenditures From 1920 = Service d'administration générale – Justice Indigène (Personnel Européens et Indigènes + Matériel Européens et Indigènes) 1920 = [Ch. IV. (Art.6) + Ch. V (Art 5)]

Table: Aggregation of the Justice Expenditures of La Réunion 1907-1923 colony

Year	Justice Indigène / <i>Service d'administration générale</i>				Justice Expenditures
	Personnel		Matériel		
	Chapter	Article	Chapter	Article	
1907	3	1	3	2	∑ Articles
1909-1910	3	1	3	2	∑ Articles
1920-1923	4	4	5	4	∑ Articles

Source: Développement des Recettes 1907 - 1923. Compte définitif des recettes et des dépenses de la Colonie La Réunion. Bibliothèque nationale de France. Gallica digital library Bibliothèque nationale. www.bnf.fr

Table: Subsidies received, and Revenue collected from the reserve funds of La Réunion colony

Year	Subventions	Fonds de reserves
1907	179000	-
1909	122000	
1910	115000	
1920	-	677000
1921	-	150000

Source: Développement des Recettes 1907 - 1923. Compte définitif des recettes et des dépenses de la Colonie La Réunion. Bibliothèque nationale de France. Gallica digital library Bibliothèque nationale. www.bnf.fr

Note: Due to data availability, I did not calculate the variable for police and prison in La Réunion. However, this has no impact on this study as the data on police and prisons are not part of the variables I am interested in in this study.

The colony of Comoros

The colony of Comoros, formerly known as the colony of Mayotte and Dependencies, is a former French territory. French colonial influence in the Comoros began almost 200 years after the Portuguese colonial experiment in the 16th century with the occupation of Mayotte and eventually extended to the control of the protectorate of Grande Comore, protectorate of Anjouan and protectorate of Mohéli between 1841 and 1975. The colony's data was obtained by compiling revenue and expenditure data for the four territories from the colony's "Budget des recettes et Dépenses des services locaux" for the period 1907 to 1913.

Total Net revenue = Direct Taxes (Contributions Directes) + **Indirect Taxes** (Contributions Indirectes) + **Other Taxes*** (Produits Divers excluding Subvention) + (Recettes d'ordre + Recettes Extraordinaires). Or
Total Net Revenue = Total Revenue – Subvention – Fonds de réserves.

Table : Revenue of the colony of Mayotte and dependencies

Year	Contributions Directes				Contributions Indirectes				Produits Divers				TNR
	Mayotte	Anjouan	G.Comore	Mohéli	Mayotte	Anjouan	G.Comore	Mohéli	Mayotte	Anjouan	G.Comore	Mohéli	
1907	Ch1	Ch1	Ch1	Ch1	Ch2	Ch2	Ch2	Ch2	Ch3	Ch3	Ch3	Ch3	Σ ^{CD,CLO} _C
1908	Ch1	Ch1	Ch1	Ch1	Ch2	Ch2	Ch2	Ch2	Ch3	Ch3	Ch3	Ch3	Σ ^{CD,CLO} _C
1909	Ch1	Ch1	Ch1	Ch1	Ch2	Ch2	Ch2	Ch2	Ch3	Ch3	Ch3	Ch3	Σ ^{CD,CLO} _C
1910	Ch1	Ch1	Ch1	Ch1	Ch2	Ch2	Ch2	Ch2	Ch3	Ch3	Ch3	Ch3	Σ ^{CD,CLO} _C
1911	Ch1+4+5	Ch1+4+5	Ch1+4+5	Ch1+4+5	Ch1+4+5	Ch1+4+5	Ch1+4+5	Ch1+4+5	Ch1+4+5	Ch1+4+5	Ch1+4+5	Ch1+4+5	Σ ^{CD,CLO} _C
1912	Ch1	Ch1+4+5	Ch1+4+5	Ch1+4+5	Ch1+4+5	Ch1+4+5	Ch1+4+5	Ch1+4+5	Ch1+4+5	Ch1+4+5	Ch1+4+5	Ch1+4+5	Σ ^{CD,CLO} _C
1913	Ch1+4+5	Ch1+4+5	Ch1+4+5	Ch1+4+5	Ch1+4+5	Ch1+4+5	Ch1+4+5	Ch1+4+5	Ch1+4+5	Ch1+4+5	Ch1+4+5	Ch1+4+5	Σ ^{CD,CLO} _C

Source : Développement des Recettes 1907 - 1925. Budget du service local de la colonie de Mayotte et dépendances. Bibliothèque nationale de France. Gallica digital library Bibliothèque nationale. www.bnf.fr

Police and prison Expenditures = Police et Prison [Police (Personnel + Matériel) + Prison (personnel + Matériel)] → 1907 = Ch. IV

Table : Police and Prisons Expenditures

Year	Police and Prisons (personnel)				Police and Prisons (matériel)				TNR
	Mayotte	Anjouan	G.Comore	Mohéli	Mayotte	Anjouan	G.Comore	Mohéli	
1907	Ch4	Ch3	Ch3	Ch3	Ch4	Ch3	Ch3	Ch3	Σ ^{Ch4+Ch3}
1908	Ch4	Ch3	Ch3	Ch3	Ch4	Ch3	Ch3	Ch3	Σ ^{Ch4+Ch3}
1909	Ch3	Ch3	Ch3	Ch3	Ch3	Ch3	Ch3	Ch3	Σ ^{Ch3}
1910	Ch3	Ch3	Ch3	Ch3	Ch3	Ch3	Ch3	Ch3	Σ ^{Ch3}
1911	Ch3	Ch3	Ch3	Ch3	Ch3	Ch3	Ch3	Ch3	Σ ^{Ch3}
1912	Ch3	Ch3	Ch3	Ch3	Ch3	Ch3	Ch3	Ch3	Σ ^{Ch3}
1913	Ch3	Ch3	Ch3	Ch3	Ch3	Ch3	Ch3	Ch3	Σ ^{Ch3}

Source : Développement des Recettes 1907 - 1925. Budget du service local de la colonie de Mayotte et dépendances. Bibliothèque nationale de France. Gallica digital library Bibliothèque nationale. www.bnf.fr

Public Works Expenditures = [Personnel des Travaux publics (Personnel des Travaux publics) + Matériel des travaux publics et des Mines – Travaux neuf et Entretien (Matériel des travaux publics et des Mines + Travaux d’entretien + Travaux neufs + Construction de route)] → 1907 = [Ch. IV]

Table : Public Works Expenditures

Year	Public Works Expenditures (personnel)				Public Works Expenditures (matériel)				TNR
	Mayotte	Anjouan	G.Comore	Mohéli	Mayotte	Anjouan	G.Comore	Mohéli	
1907	Ch8	Ch7	Ch7	Ch7	Ch8	Ch8	Ch7	Ch7	ΣCh8+Ch7
1908	Ch8	Ch7	Ch7	Ch7	Ch8	Ch8	Ch7	Ch7	ΣCh8+Ch7
1909	Ch7	Ch7	Ch7	Ch7	Ch7	Ch7	Ch7	Ch7	ΣCh7
1910	Ch7	Ch7	Ch7	Ch7	Ch7	Ch7	Ch7	Ch7	ΣCh7
1911	Ch7	Ch7	Ch7	Ch7	Ch7	Ch7	Ch7	Ch7	ΣCh7
1912	Ch7	Ch7	Ch7	Ch7	Ch7	Ch7	Ch7	Ch7	ΣCh7
1913	Ch7	Ch7	Ch7	Ch7	Ch7	Ch7	Ch7	Ch7	ΣCh7

Source : Développement des Recettes 1907 - 1925. Budget du service local de la colonie de Mayotte et dépendances. Bibliothèque nationale de France. Gallica digital library Bibliothèque nationale. www.bnf.fr

Healthcare Expenditures = Service sanitaire (Personnel + Matériel) → 1907 = [Ch. XVII]

Table : Healthcare Expenditures

Year	Healthcare Expenditures (personnel)				Healthcare Expenditures (matériel)				TNR
	Mayotte	Anjouan	G.Comore	Mohéli	Mayotte	Anjouan	G.Comore	Mohéli	
1907	Ch7	Ch6	Ch6	Ch6	Ch7	Ch7	Ch6	Ch6	ΣCh7+Ch6
1908	Ch7	Ch6	Ch6	Ch6	Ch7	Ch7	Ch6	Ch6	ΣCh7+Ch6
1909	Ch6	Ch6	Ch6	Ch6	Ch6	Ch6	Ch6	Ch6	ΣCh6
1910	Ch6	Ch6	Ch6	Ch6	Ch6	Ch6	Ch6	Ch6	ΣCh6
1911	Ch6	Ch6	Ch6	Ch6	Ch6	Ch6	Ch6	Ch6	ΣCh6
1912	Ch6	Ch6	Ch6	Ch6	Ch6	Ch6	Ch6	Ch6	ΣCh6
1913	Ch6	Ch6	Ch6	Ch6	Ch6	Ch6	Ch6	Ch6	ΣCh6

Source : Développement des Recettes 1907 - 1925. Budget du service local de la colonie de Mayotte et dépendances. Bibliothèque nationale de France. Gallica digital library Bibliothèque nationale. www.bnf.fr

Education Expenditures = Instruction publique (Personnel + Matériel) → 1907 = [Ch. X]

Table : Education Expenditures

Year	Education Expenditures (personnel)				Education Expenditures (matériel)				TNR
	Mayotte	Anjouan	G.Comore	Mohéli	Mayotte	Anjouan	G.Comore	Mohéli	
1907	Ch10	Ch9	Ch9	Ch9	Ch10	Ch10	Ch9	Ch9	ΣCh10+Ch9
1908	Ch10	Ch9	Ch9	Ch9	Ch10	Ch10	Ch9	Ch9	ΣCh10+Ch9
1909	Ch9	Ch9	Ch9	Ch9	Ch9	Ch9	Ch9	Ch9	ΣCh9
1910	Ch9	Ch9	Ch9	Ch9	Ch9	Ch9	Ch9	Ch9	ΣCh9
1911	Ch9	Ch9	Ch9	Ch9	Ch9	Ch9	Ch9	Ch9	ΣCh9
1912	Ch9	Ch9	Ch9	Ch9	Ch9	Ch9	Ch9	Ch9	ΣCh9
1913									

Source : Développement des Recettes 1907 - 1925. Budget du service local de la colonie de Mayotte et dépendances. Bibliothèque nationale de France. Gallica digital library Bibliothèque nationale. www.bnf.fr

Justice Expenditures = Justice Indigène (Organisation de la justice indigène + Frais de déplacement

des juges indigènes+ Fourniture de bureau pour l'organisation de la justice) → 1907 = [Ch. VI]

Table : Justice Expenditures

Year	Justice Expenditures (personnel)				Justice Expenditures (matériel)				TNR
	Mayotte	Anjouan	G.Comore	Mohéli	Mayotte	Anjouan	G.Comore	Mohéli	
1907	Ch6	Ch5	Ch5	Ch5	Ch6	Ch6	Ch5	Ch5	ΣCh6+Ch5
1908	Ch6	Ch5	Ch5	Ch5	Ch6	Ch5	Ch5	Ch5	ΣCh6+Ch5
1909	Ch5	Ch5	Ch5	Ch5	Ch5	Ch5	Ch5	Ch5	ΣCh5
1910	Ch5	Ch5	Ch5	Ch5	Ch5	Ch5	Ch5	Ch5	ΣCh5
1911	Ch5	Ch5	Ch5	Ch5	Ch5	Ch5	Ch5	Ch5	ΣCh5
1912	Ch5	Ch5	Ch5	Ch5	Ch5	Ch5	Ch5	Ch5	ΣCh5
1913									

Source : Développement des Recettes 1907 - 1925. Budget du service local de la colonie de Mayotte et dépendances. Bibliothèque nationale de France. Gallica digital library Bibliothèque nationale. www.bnf.fr

Note : No subvention for 1907-1913

The colony of the Gambia

The British colonial presence in The Gambia and protectorates began with the establishment of Fort James on Kunta Kinteh⁴⁷ Island, formerly known as James Island and St. Andrew Island. The colony of The Gambia and its riparian states were initially known to the British as Bathurst since its establishment in 1816. The territorial delineation of the area was long the subject of dispute between the French and British due to its geographical and cultural proximity to the French colony of Senegal. However, the Gambia was long under the administrative supervision of the crown colony of Sierra Leone before becoming an independent colony in the second half of the 19th century with the appointment of its own governor. The territory remained under British administration until independence in 1965. However, I obtain the colony's data from the Gambia's Blue Book, which contains a statement of revenues and expenditures.

Total Net Revenues = [**Direct taxes** (Total of License, Excises, & C + Total of Protectorate Revenue) + **Indirect taxes** (Total of Customs + Port Dues, + Post Office Revenue) + **Other Revenue** (Fees of Court or Office & C + Rents of Government Property Revenue)]

Table: Revenue of the Colony Bathurst 1907-1925

Year	Direct Tax (DT)	Indirect Tax (IT)	Other Revenue (ORV)	Total Revenue
1907-1913	TLEC + TPR	TC + PD + POFF	ORV	ΣDT, IT, ORV
1919 - 1922	TLEC + TPR	TC + PD + POFF	ORV	ΣDT, IT, ORV
1923-1925	TLEC + YT + M*	TC + PD + POFF	ORV	ΣDT, IT, ORV

Source: Colonial Africa in Official Statistics, 1821-1953 Volumes, British online Archives. Gambia Blue Book. Abstract of the Revenue and Expenditure of the Gambia for the year 1907 - 1925.

<https://microform.digital/boa/collections/39/colonial-africa-in-official-statistics-1821-1953/volumes>

Note: **Other Revenue (ORV)** describes all revenues other Than the direct and indirect taxes of the colony of the Gambia.

TLEC= Total License, Excise, &C. (Excluded all the non-tax revenue such as fees, stamp duties and proceed from sales); **TPR**= Total of Protectorate Revenue (Excluded all the non-tax revenue such as fees, stamp duties and proceed from sales); **TC**= Total of Customs; **PD**= Total of Port Dues; **POFF**= Post Office; **ORV**=Other Revenue; **YT**= Yard Tax; **M**= Miscellaneous

M*= I added the four first items under Miscellaneous to the sub-rubric Direct Tax and the remaining items were added to the sub-rubric Other Revenue for the years 1923, 1924, and 1925 (**Abstract of the revenue of 1923, 1924, and 1925**). The added items to the Direct Tax for each of those 3 years were: Farm Rents, Land Rents, Pasture Fees, Royalty on Timber.

⁴⁷ <https://whc.unesco.org/en/list/761>

Table: Expenditures of the Colony Bathurst 1907-1925

Year	JEXP	EEXP	HEXP	PWEXP	PPEXP
1907-1913	JD + AG	EDUC	MD + H&D + PH	PWD + PWR + PWE	POL + PRIS
1919 - 1925	JD + AG	EDUC	MD + H&D + PH	CED + PWD + PWR + PWE	POL + PRIS

Source: Colonial Africa in Official Statistics, 1821-1953 Volumes, British online Archives. Gambia Blue Book. Comparative Yearly Statement of the Expenditure of the colony of the Gambia for the year 1907 - 1925.

<https://microform.digital/boa/collections/39/colonial-africa-in-official-statistics-1821-1953/volumes>

JD= Justice Department; **AG**= Attorney General; **EDUC**= Education; **MD**= Medical Department; **H&D**= Hospitals and Dispensaries; **PH**= Public Health; **PWD**= Public Works Department; **PWR**= Public Works Recurrent; **PWE**= Public Works Extraordinary; **POL**= Police; **PRIS**= Prisons.

Table: Grant and Loan of the Colony Bathurst 1907-1925

Year	Grants	Loans
1907	-	-

Source : **Source:** Colonial Africa in Official Statistics, 1821-1953 Volumes, British online Archives. Gambia Blue Book. Abstract of the Revenue and Expenditure of the colony of the Gambia for the year 1907 - 1925.

Note: There were no grant/Subsidy awarded to the colony of The Gambia from 1907 to 1925

The colony of Ghana

The colony of Ghana, known as the Gold Coast, was part of the British colonial empire from 1821 until its decolonization under the leadership of Dr. Kwame Nkrumah in 1957. The first interactions between Europeans and natives in the region date back to trade relations with the Portuguese in the 15th century and later to the slave trade for which the Ashanti Empire, which dominated the region until its defeat in the subsequent Anglo-Ashanti Wars, was notorious. In its heyday, the Gold Coast included the Ashanti region, the protectorates of the Northern Territories, and British Togoland (Chipp, 1922). However, the first statistical records of the colony were not compiled until 1846. I have taken the data for the period 1907 to 1925 from the Colonial Blue Book.

The total of Direct taxes consists of the direct taxes collected from the Ashanti territories, the Northern territories, and all the territories of the colony of Ghana.

Total Net Revenues = [**Direct taxes** (Total License and internal Revenue not otherwise classified + Ashanti Territories direct taxes + Northern Territories direct taxes) + **Indirect taxes** (Total of Customs + Light Dues, + Post Office Revenue + Ashanti indirect taxes + Northern Territories indirect taxes) + **Other Revenue** (Fees of Court or Office & C + Rents of Government Property Revenue + all other Revenues other than direct and indirect taxes)].

Table: Revenues of the of the Colony of Gold Cost 1907-1925

Year	Direct Tax (DT)	Indirect Tax (IT)	Other Revenue (ORV)	Total Revenue
1907-1925	TLIR + ATDT+NTDT	TC + LD + POFF + ATID + NTID	ORV	ΣDT, IT, ORV

Source: Colonial Africa in Official Statistics, 1821-1953 Volumes, British online Archives. Ghana Blue Book. Abstract of the Revenue and Expenditure of the colony of Ghana for the year 1907 - 1925.

<https://microform.digital/boa/collections/39/colonial-africa-in-official-statistics-1821-1953/volumes>

Note: **Other Revenue (ORV)** describes all revenues other Than the direct and indirect taxes of the Ashanti, Northern Territories, and the other colonial territories of Ghana

TLIR = Total License and internal Revenue not otherwise classified (Excluded all the non-tax revenue such as fees, stamp duties and proceed from sales); **ATDT** = Ashanti Territories direct taxes; **NTDT**= Northern Territories direct taxes; **TC**= Total of Customs; **LD**= Total Light Dues; **POFF**= Post Office; **ATID** = Ashanti indirect taxes; **NTID**= Northern Territories indirect taxes; **ORV**=Other Revenue.

Note 1 = **Ashanti** Territories direct taxes of all the License Revenues under the sub-rubric **Revenue from Ashanti** and the Northern Territories direct taxes also consist of all the License Revenue found under the sub-rubric Revenue from **Northern Territories**.

Note 2 = The Indirect Taxes of the Ashanti and Northern Territories consist of the revenues from Sale of Stamps, Post Cards & C.

Table: Expenditures of the of the Colony of Gold Cost 1907-1925

Year	JEXP	EEXP	HEXP	PWEXP	PPEXP
1907-1913	SC + LO	EDUC	MD +SE+SMRE	PWD + PWR + PWE	POL + PRIS+CNT
1919	SC + LO	EDUC	MD +SE+ SMRE	PWD + PWR +PWE + WWM	POL + PRIS+CNT
1920-1925	SC + LO	EDUC	MD +SE+ SMRE	PWD + PWR + PWE	POL + PRIS+CNT

Source: Colonial Africa in Official Statistics, 1821-1953 Volumes, British online Archives. Ghana Blue Book. Comparative Yearly Statement of the Expenditure of the colony of Ghana for the year 1907 - 1925.

<https://microform.digital/boa/collections/39/colonial-africa-in-official-statistics-1821-1953/volumes>

SC= Supreme Court; **LO**=Law Officer; **EDUC**= Education; **MD**= Medical Department; **SE**= Sanitary Expenses of Ashanti and Northern Territories; **SMRE**= Special Medical Research Expenses; **PWD**= Public Works Department; **PWR**= Public Works Recurrent; **PWE**= Public Works Extraordinary; **POL**= Police; **PRIS**= Prisons; **CNT**= Constabulary Northern Territories; **WWM**= Water Works Maintenance.

Note 1 = I added to the Public Expenditures of 1913 the expenses incurred in the establishment and Construction of Bridges and Yegi-Makongo roads.

Note 2 = I added to the Public Expenditures of 1919 the expenses incurred for the waterworks maintenances

Note 3 = I added to the public works expenditures the expenses incurred under Ashanti and Northern territories public road department for the years 1909, 1910, and 1912.

Note 4 = I added to Healthcare expenditures the sanitation expenses of Ashanti territory for the year 1912.

Note 5 = I added the education expenses of Achimota college to the education expenditures of 1924 and 1925.

Table: Grant and Loan of the of the Colony of Gold Cost 1907-1925

Year	Grants	Loans
1907	-	-

Source: **Source:** Colonial Africa in Official Statistics, 1821-1953 Volumes, British online Archives. Ghana Blue Book. Abstract of the Revenue and Expenditure of the colony of Ghana for the year 1907 - 1925. **Note:** There were no grant/Subsidy awarded to the colony of Ghana from 1907 to 1925

The colony of Kenya

The colonial experience of Kenya began with the rule of the British East African Company, which was granted permission to exploit the territory in 1888 before the British government took over the administration of the colony after the colonial company went bankrupt. The colonial experience of the colony of Kenya and its tributary areas before independence in 1963 was lengthy and arduous due to the large number of European settlers compared to other areas with different demographic experiences⁴⁸. Nevertheless, the territory (East African Protectorates) was established as an independent colony and renamed Kenya in 1920. I have taken the data of the colony from the colonial blue book of Kenya.

Total Net Revenues = [Direct taxes (Total License and internal Revenue not otherwise classified) + **Indirect taxes** (Total of Customs + Post Office Revenue) + **Other Revenue** (Fees of Court or Office & C + Rents of Government Property Revenue + all other Revenues other than direct and indirect taxes)]

Table: Revenues of the colony of East African Company (Kenya & Protectorates) 1907-1913

Year	Direct Tax (DT)	Indirect Tax (IT)	Other Revenue (ORV)	Total Revenue
1907-1913	TLIR	TC ++ PHWLD + POFF	ORV	ΣDT, IT, ORV

Source: Colonial Africa in Official Statistics, 1821-1953 Volumes, British online Archives. Kenya Blue Book. Abstract of the Revenue and Expenditure of the colony of Kenya for the year 1907 - 1913.

<https://microform.digital/boa/collections/39/colonial-africa-in-official-statistics-1821-1953/volumes>

Note: Other Revenue (ORV) describes all revenues other Than the direct and indirect taxes of the colony of Kenya.

TLIR = Total License and internal Revenue not otherwise classified (Excluded all the non-tax revenue such as fees, stamp duties and proceed from sales); **TC**= Total of Customs; **PHWLD** = Total of Port Harbour Wharf and Light Dues; **POFF**= Post Office; **ATID** = Ashanti indirect taxes; **NTID**= Northern Territories indirect taxes; **ORV**=Other Revenue.

Table: Expenditures of the colony of East African Company (Kenya & Protectorates) 1907-1913

Year	JEXP	EEXP	HEXP	PWEXP	PPEXP
1907	LD	EDUC	MD + H&D	PWD + PWR + PWE	POL + PRIS
1908-1911	LD + LDSE	EDUC	MD + MDSE + H&D + H&DSE	PWD + PWR + PWE	POL + PRIS
1912	LD + LDSE	EDUC	MD + MDSE + H&D + H&DSE	PWD + PWR + PWE	POL + PRIS
1913	LD + LDSE	EDUC	MD + MDSE + H&D + H&DSE	PWD + PWR + PWE	POL + PRIS + PRISSE

Source: Colonial Africa in Official Statistics, 1821-1953 Volumes, British online Archives. Kenya Blue Book. Comparative Yearly Statement of the Expenditure of the colony of Kenya for the year 1907 - 1913. <https://microform.digital/boa/collections/39/colonial-africa-in-official-statistics-1821-1953/volumes>

LD=Legal Department; **LDSE**= Legal Department Special Expenditure; **EDUC**= Education; **MD**= Medical Department; **MDSE**= Medical Department Special Expenditure; **H&D**= Hospitals and Dispensaries; **H&DSE**= Hospital and Dispensaries Special Expenditures; **PWD**= Public Works Department; **PWR**= Public Works Recurrent; **PWE**= Public Works Extraordinary; **POL**= Police; **PRIS**= Prisons; **PRISSE**= Prison Special Expenditure.

Table: Grant and Loan of the colony of East African Company (Kenya & Protectorates)

Year	Grants
1907	164000
1908	192975
1909	138000
1910	133500
1911	130000
1912	190000
1913	23500

Source : **Source:** Colonial Africa in Official Statistics, 1821-1953 Volumes, British online Archives. Kenya Blue Book. Abstract of the Revenue and Expenditure of the colony of Kenya for the year 1907 - 1913.

⁴⁸ In 1921, almost 2.4 million natives, about 1000 Europeans, over 22000 Indians and more than 1000 Arabs lived in the area now known as Kenya.

The colony of Nyassaland (Malawi)

The colony of Malawi, formerly known as Nyassaland, was part of the British Empire from 1891 to 1964 and was established under the name Central Africa Protectorate until it was renamed in 1907. Nyassaland was incorporated into the Central African Federation between 1953 and 1963, after official administration of the colony by British authorities began in 1904. It was initially administered directly by the British before an indirect form of government was introduced and implemented in the 1930s. However, the colony's data for the years 1907 to 1925 were taken from the statement of revenues and expenditures in the colony's Blue Book.

Total Net Revenues = [**Direct taxes** (Total License and internal Revenue not otherwise classified) + **Indirect taxes** (Total of Customs + Post Office Revenue) + **Other Revenue** (Fees of Court or Office & C + Rents of Government Property Revenue + all other Revenues other than direct and indirect taxes)]

Table: Revenues of the colony of Nyasaland 1907-1925

Year	Direct Tax (DT)	Indirect Tax (IT)	Other Revenue (ORV)	Total Revenue
1907-1911	TLIR + NHT	TC ++ PHWLD + POFF	ORV	∑DT, IT, ORV
1912-1913	TLIR + NHT+ LT	TC ++ PHWLD + POFF	ORV	∑DT, IT, ORV
1919-1920	TLIR + NHT+ LT	TC ++ PHWLD + POFF	ORV	∑DT, IT, ORV
1922-1925	TLIR + NHT+ LT+INCT	TC ++ PHWLD + POFF	ORV	∑DT, IT, ORV

Source: Colonial Africa in Official Statistics, 1821-1953 Volumes, British online Archives. Malawi Blue Book. Abstract of the Revenue and Expenditure of the colony of Malawi for the year 1907 - 1925.

<https://microform.digital/boa/collections/39/colonial-africa-in-official-statistics-1821-1953/volumes>

Note: **Other Revenue (ORV)** describes all revenues other Than the direct and indirect taxes of the colony of Malawi

TLIR = Total License and internal Revenue not otherwise classified (Excluded all the non-tax revenue such as fees, stamp duties and proceed from sales); **NHT**= Native Hut Tax; **LT**= Land Tax; **TC**= Total of Customs; **PHWLD** = Total of Port Harbour Wharf and Light Dues; **POFF**= Post Office; **ATID** = Ashanti indirect taxes; **NTID**= Northern Territories indirect taxes; **ORV**=Other Revenue.

Table: Expenditures of the colony of Nyassaland 1907-1925

Year	JEXP	EEXP	HEXP	PWEXP	PPEXP
1907-1911	JLD	EDUC	MD	PWD + PWR + PWE	POL + PRIS
1912-1913	JLD	EDUC	MD + SESC	PWD + PWR + PWE	POL + PRIS
1919-1925	JLD	EDUC	MD	PWD + PWR + PWE	POL, PRIS&ASYL

Source: Colonial Africa in Official Statistics, 1821-1953 Volumes, British online Archives. Malawi Blue Book. Comparative Yearly Statement of the Expenditure of the colony of Malawi for the year 1907 - 1925.

<https://microform.digital/boa/collections/39/colonial-africa-in-official-statistics-1821-1953/volumes>

JLD=Judicial Legal Department; **LDSE**= Legal Department Special Expenditure; **EDUC**= Education; **MD**= Medical Department; **SESC**= Special Expenditure Scientific Commission; **PWD**= Public Works Department; **PWR**= Public Works Recurrent; **PWE**= Public Works Extraordinary; **POL**= Police; **PRIS**= Prisons; **PRIS&ASYL**= Police, Prisons and Lunatic Asylum.

Note 1 = Regarding the education expenditures of Malawi, I only computed the grant in-aid for education and can be found either on the summary of education document or on the statement of expenditures. For 1907- 1913 see education document. For 1909 see detailed expenditure documents.

Note 2 = The police and military expenses seems conflated under one rubric. The amount stated looks like military expenses because of the descriptive detail in the statement. Therefore, I did not compute no data for police and prisons for 1903, 1904, and, 1905. From 1906-1913 only recorded the values of the prison rubric which appear on the expenditure statements under the rubric prisons. But from 1919 onward, the rubric was changed to police, prisons and, lunatic asylum.

Table: Grant and Loan of the colony of Nyassaland 1907-1925

Year	Grants	Loans
1912	-	50000
1913		65000
1921		100000
1922		128050
1923		70582,12
1924		94500
1925		104600

Source : **Source:** Colonial Africa in Official Statistics, 1821-1953 Volumes, British online Archives. Malawi Blue Book. Abstract of the Revenue and Expenditure of the colony of Malawi for the year 1907 - 1925.

Note: The Loans were granted by the Imperial Treasury from 1907 to 1925

The colony of Nigeria

The Nigerian colony consisted of two main colonies: the Protectorate of Northern Nigeria, which fell under the jurisdiction of the Royal Niger Company, and the Protectorate of Southern Nigeria, which was a part of the Protectorate of the Niger Coast. British interest in the area initially arose from the invasion of Lagos in 1861, leading to the establishment of the Oil River Protectorate in 1884. During the late 19th century, the Royal Niger Company largely governed the region. However, in the first decades of 20th century, as the northern and southern territories unified, the British government directly assumed control from the colonial companies, which continued until Nigeria gained independence in 1960. Information on the colony's public finances comes from the revenue and expenditure accounts of both regions in the Blue Book of Nigeria (Udo et al., 2023).

From 1907 to 1913, the total Revenue and Expenditure of the Colony of the colony was obtained by computing the total Revenues and expenditures of the Southern and Northern Territories. But the financial documents from 1919 to 1925 provided the revenues and Expenditures of the unified territories into a single colony.

Total Net Revenues = [**Direct taxes** (Total License and internal Revenue not otherwise classified) + **Indirect taxes** (Total of Customs + Post Office Revenue) + **Other Revenue** (Fees of Court or Office & C + Rents of Government Property Revenue + all other Revenues other than direct and indirect taxes)]

Table: Revenues of the colony of Nigeria 1907-1925

Year	Direct Tax (DT)	Indirect Tax (IT)	Other Revenue (ORV)	Total Revenue
1907-1913	TLIR+LD	TC + PHWLD + POFF+OINDRV	ORV	ΣDT, IT, ORV
1919 1925	TLIR+DT	TC+ MR + POFF	ORV	ΣDT, IT, ORV

Source: Colonial Africa in Official Statistics, 1821-1953 Volumes, British online Archives. Nigeria Blue Book. Abstract of the Revenue and Expenditure of the colony of Nigeria for the year 1907 - 1925.

<https://microform.digital/boa/collections/39/colonial-africa-in-official-statistics-1821-1953/volumes>

Note: **Other Revenue (ORV)** describes all revenues other Than the direct and indirect taxes of the Northern and Southern Territories of the Colony of Nigeria.

TLIR = Total License and internal Revenue not otherwise classified (Excluded all the non-tax revenue such as fees, stamp duties and proceed from sales); **LD** = Land revenue; **TC**= Total of Customs; **MR** = Marine Revenues; **POFF**= Post Office; **ORV**=Other Revenue; **PHWLD**= Total of Port Harbour Wharf and Light Dues; **OINDRV** (stamp duties, marine revenues, sale duties, etc.= other indirect revenues; **DT**= direct taxes

Note1 = I excluded revenues from Excises and Fines conflated into TLIR from 1919 to 1925. A new item direct appears on the statement of revenue over 1919 to 1925.

Note2= The total custom revenue includes all incomes from import, export, and other receipts to which I added all the incomes derived from the Marine (Harbour dues).

Note3 = I could not find the detailed statement of revenue of the colony of southern Nigeria for the year 1912. Therefore, I took the total value of the rubric licenses from the comparative statement of expenditures.

Note 4 = The size of Land Tax revenue in Northern Nigeria in 1911 was 413933,7 pounds. This is shown in descriptive column of the 1911 comparative statement of expenditures of the northern colony. From the same statement, I included the total amount of license and internal revenues. I cannot confirm if the that revenue was conflated with other revenues as in previous years. I had only the summary statement of expenditures of northern territory available to us for that year.

Note 5= The data of 1912 for Northern Nigeria was computed from the revenue statement and the comparative summary revenue statement. The revenue statement did not include all the items as in for previous years. Therefore, I collected the remaining items for our calculation from the comparative yearly statement. But note that that sometimes, the total revenue given in the statements did not correspond to the total revenue I calculated. That is due to the disparities in the data of the statements. For example, when you do the sum of all the items of the statement, you may not necessarily find the same total as recorded in the statements. I simply focus on the items of our interest and computed them.

Note 6 = The statements of expenditures of southern Nigeria for the year 1912 do not provide enough detail as previous statements have done. I took computed the data for all the items at face values. It possible that the total value of some the items are possibly conflated with the value of other items such as indirect revenues as was the case in previous statements.

Note 7= I subtracted from the total revenue the incomes recovered from the loan funds in (1919 = 47959,4); (1920 = 81231,2); (1921 = 7026,1); (1922 = 700,5);

Table: Expenditures of the colony of Nigeria 1907-1925

Year	JEXP	EEXP	HEXP	PWEXP	PPEXP
1907-1913	JLD + L&R	EDUC	MD+SE	PWD + PWR + PWE	CNT + PRIS + CPOL
1919 -1925	JLD + L&R + MGE	EDUC	MD+MRIE+MSE+SE	PWD + PWR + PWE	POL + PRIS

Source: Colonial Africa in Official Statistics, 1821-1953 Volumes, British online Archives. Nigeria Blue Book. Comparative Yearly Statement of the Expenditure of the colony of Nigeria for the year 1907 - 1925.

<https://microform.digital/boa/collections/39/colonial-africa-in-official-statistics-1821-1953/volumes>

JLD=Judicial Legal Department; **L&R**= Legal and Registration; **MGE**= Magistrate Expenses; **EDUC**= Education; **MD**= Medical Department; **MRIE**= Medical Research Institute Expenses; **MSE**= Medical Special Expenses; **PWD**= Public Works Department; **PWR**= Public Works Recurrent; **PWE**= Public Works Extraordinary; **SE**= Sanitary/Sanitation Expenses; **POL**= Police; **PRIS**= Prisons; **CNT**= Constabulary, **CPOL**= Civil Police.

Note 1 = Public Works Expenses from 1907-1913 consist of Southern and Northern Nigeria of Public Department expenses, Road Works expenses, Public Works Recurrent (Works and Building Recurrent, Road and Bridges Recurrent), Public Works Extraordinary (Works and Buildings Recurrent, Road and Bridges Recurrent).

Table: Grant and Loan of the colony of Nigeria 1907-1925

Year	Grants	Loans
1907		
1908		
1909		
1910		
1911		
1912		
1913		

Source: Colonial Africa in Official Statistics, 1821-1953 Volumes, British online Archives. Nigeria Blue Book. Abstract of the Revenue and Expenditure of the colony of Nigeria for the year 1907 - 1925.

Note: The Loans that were granted to the colony of Nigeria were mostly granted to the Northern Territories between 1907 to 1925

The colony of Sierra Leone

Sierra Leone's colonial history began with the abolition of slavery in Britain following a court ruling in 1772. Although many celebrated the humanitarian and moral aspects of this endeavour, there were also dissenting voices that doubted its validity. In 1787, 380 freed slaves were brought to Sierra Leone under the banner of "black self-determination," leading to the establishment of the Freedom Province. Despite the abolition of slavery in Britain, the Crown continued to be involved in the slave trade in its overseas possessions (Farfán & Lopez Uribe, 2020). However, the true motivations for the repatriation policy remain highly controversial (Farfán & Lopez Uribe, 2020).

However, the repatriation policy proved to be a failure, as conflicts arose between the newcomers and the locals, leading to the re-enslavement of former slaves and some of them even becoming slavers themselves. As a consequence of this turmoil, the first settlement was destroyed by the Temne tribe in 1789 leading to Britain taking control of the area, and the establishment of a new settlement at Greenville-Town by the remaining returnees from the original colony.

In 1792, Freetown was founded when many freed slaves arrived from New Scotland (Canada) in the same year, and Jamaica in 1800. In addition, many freed and re-enslaved people were settled in the first decades the 1800s. However, as a result of treaties signed with some local leaders along the coastal region, Britain declared a protectorate in 1896 in the region in addition to its existing colonies and maintaining control until Sierra Leone gained independence in 1961. The data on the Sierra Leone colony come from the statements of revenue and expenditure found in the colonial Blue Book of Sierra Leone.

Total Net Revenues = [**Direct taxes** (Total License and internal Revenue not otherwise classified) + **Indirect taxes** (Total of Customs + Post Office Revenue) + **Other Revenue** (Fees of Court or Office & C + Rents of Government Property Revenue + all other Revenues other than direct and indirect taxes)]

Table: Revenues of the colony Sierra Leone 1907-1925

Year	Direct Tax (DT)	Indirect Tax (IT)	Other Revenue (ORV)	Total Revenue
1907	TLIR + TPR	TC + + PHWLD + POFF	ORV	ΣDT, IT, ORV
1908 - 1925	TLIR	TC + + PHWLD + POFF	ORV	ΣDT, IT, ORV

Source: Colonial Africa in Official Statistics, 1821-1953 Volumes, British online Archives. . Sierra Leone Blue Book. Abstract of the Revenue and Expenditure of the colony of Sierra Leone for the year 1907 - 1925.

<https://microform.digital/boa/collections/39/colonial-africa-in-official-statistics-1821-1953/volumes>

Note: **Other Revenue (ORV)** describes all revenues other Than the direct and indirect taxes of the Colony of Sierra Leone.

TLIR = Total License and internal Revenue not otherwise classified (Excluded all the non-tax revenue such as fees, stamp duties and proceed from sales); **TPR**= Total of Protectorate Revenue (Excluded all the non-tax revenue such as fees and proceed from sales) **TC**= Total of Customs; **PHWLD** = Total of Port Harbour Wharf and Light Dues; **POFF**= Post Office; **ORV**=Other Revenue.

Note1 = I excluded all the Revenues from Excises and Fines conflated into TLIR from 1919 to 1925.

Note2 = I added the value of the revenue of the protectorate to the direct taxation from the comparative statement because the detailed statement of expenditure for 1904, 1905, and 1906 were not available. To us.

Table: Expenditures of the colony Sierra Leone 1907-1925

Year	JEXP	EEXP	HEXP	PWEXP	PPEXP
1907-1925	LD	EDUC	MD + H&D +NH+SD	PWD + PWR + PWE +PWS+PRD+FWW	CP + PRIS

Source: Colonial Africa in Official Statistics, 1821-1953 Volumes, British online Archives. . Sierra Leone Blue Book. Comparative Yearly Statement of the Expenditure of the colony of Sierra Leone for the year 1907 - 1925.

<https://microform.digital/boa/collections/39/colonial-africa-in-official-statistics-1821-1953/volumes>

LD= Legal Department; **EDUC**= Education; **MD**= Medical Department; **H&D**= Hospitals and Dispensaries; **NH**= Nursing Home **PWD**= Public Works Department; **PWR**= Public Works Recurrent; **PWE**= Public Works Extraordinary; **PWS**= Public Works Special; **FWW**= Freetown water works; **PRIS**= Prisons; **CP**= Civil Police; **PRD**= Protectorate road department; **SN**= Sanitary department.

Note 1 = I included Nursing Home into the medical expenditures because nursing includes also the promoting health and the prevention of illnesses as well as caring for seek and disabled people.

Note 2 = I added public works special to public works expenditures in 1912.

Note 3 = I added expenses of Freetown waterworks to public works expenditures in 1913 and 1919.

Table: Grant and Loan of the colony Sierra Leone 1907-1925

Year	Grants	Loans
1907		

Source: Colonial Africa in Official Statistics, 1821-1953 Volumes, British online Archives. Sierra Leone Blue Book. Abstract of the Revenue and Expenditure of the colony of Sierra Leone for the year 1907 - 1925.

Note: There no Imperial Loans granted by to the Colony of Sierra Leone Between 1907 - 1925

The colony of Tanganyika (Tanzania)

The colonial history of the region that makes up present-day Tanzania is complex and once included German colonial rule, the British, and the Sultanate of Oman, which took control of Zanzibar from the Portuguese. In 1885, Germany laid claim to the large swathe of region by establishing the colony of German East Africa, which included parts of Tanzania, Rwanda, Burundi, and the "Kionga Triangle." After Germany's defeat in World War I, however, German East Africa was divided among the victors, with Britain retaining most of the former German colony and renaming the area Tanganyika (Conrad, 2011).

In 1890 Zanzibar obtained the status of protectorate (Britannica, 2015), and Britain maintained control over the place until 1961, when Tanganyika gained independence under the leadership of Julius Nyerere. The country was renamed Tanzania in 1964 after incorporating Zanzibar in April of the same year (Kimambo & Maddox, 2019). However, I extracted the revenue of Tanganyika from the statement of revenues and expenditures of the colonial Blue Book of Tanzania.

Total Net Revenues = [**Direct taxes** (Total License and internal Revenue not otherwise classified) + **Indirect taxes** (Total of Customs + Post Office Revenue) + **Other Revenue** (Fees of Court or Office & C + Rents of Government Property Revenue + all other Revenues other than direct and indirect taxes)]

Table: Revenues of the colony of Tanganyika (Tanzania) 1919-1924

Year	Direct Tax (DT)	Indirect Tax (IT)	Other Revenue (ORV)	Total Revenue
1919 - 1924	TLIR	TC + + PM + PT	ORV	ΣDT, IT, ORV

Source: Colonial Africa in Official Statistics, 1821-1953 Volumes, British online Archives. Tanzania Blue Book. Abstract of the Revenue and Expenditure of the colony of Tanzania for the year 1919 - 1924.

<https://microform.digital/boa/collections/39/colonial-africa-in-official-statistics-1821-1953/volumes>

Note: **Other Revenue (ORV)** describes all revenues other Than the direct and indirect taxes of the Colony of Tanzania. **TLIR** = Total License and internal Revenue not otherwise classified (Excluded all the non-tax revenue such as fees, stamp duties and proceed from sales); **TC**= Total of Customs; **PM** = Total of Port and Marine; **PT**= Post and Telegraph; **ORV**=Other Revenue. **Note1** = I excluded all the Revenues from Excises and Fines conflated into TLIR from 1919 to 1925.

Table: Expenditures of the colony of Tanganyika (Tanzania) 1919-1924

Year	JEXP	EEXP	HEXP	PWEXP	PPEXP
1907 - 1924	LD	EDUC	MDSN	PWD + PWR + PWE	POLPRIS

Source: Colonial Africa in Official Statistics, 1821-1953 Volumes, British online Archives. Tanzania Blue Book. Comparative Yearly Statement of the Expenditure of the colony of Tanzania for the year 1919-1924. <https://microform.digital/boa/collections/39/colonial-africa-in-official-statistics-1821-1953/volumes>

LD= Legal Department; **EDUC**= Education; **MDSN**= Medical and Sanitation; **PWD**= Public Works Department; **PWR**= Public Works Recurrent; **PWE**= Public Works Extraordinary; **PWS**= Public Works Special; **POLPRIS**= Police and Prisons. **Note 1** The Sanitation expenses which we added to Public Expenditures of other colonies are conflated in the case of Tanzania under the rubric Medical and Sanitation. I recorded the expenses under Healthcare Expenses because the proportion of the sanitation expenses was not specified.

Table: Grant and Loan of the colony of Tanganyika (Tanzania) 1919-1924

Year	Grants	Loans
1907		

Source: **Source:** Colonial Africa in Official Statistics, 1821-1953 Volumes, British online Archives. Tanzania Blue Book. Abstract of the Revenue and Expenditure of the colony of Tanzania for the year 1919 - 1924.

Note: There no Imperial Loans granted by to the Colony of Tanzania 1919 – 1925

The colony of Uganda

The official colonization of Uganda lasted nearly seven decades from 1893 until independence in 1962 and represents one of the most striking examples of institutional dualism in Africa, as disagreements between Catholic and Protestant local leaders in Buganda led to the breakdown of local control and paved the way for the imperial takeover. Uganda's colonial experience emerged after the demise of the Bunyoro and Buganda kingdoms (Low, 1956), when the Imperial British East African Company took over the country's first colonial administration, ending it in 1893 to pave the way for the British government takeover. Data for the Uganda Protectorate were taken from the statements of revenue and expenditure in the colonial Uganda Blue Book.

Total Net Revenues = [**Direct taxes** (Total License and internal Revenue not otherwise classified) + **Indirect taxes** (Total of Customs + Post Office Revenue) + **Other Revenue** (Fees of Court or Office & C + Rents of Government Property Revenue + all other Revenues other than direct and indirect taxes)]

Table: Revenues of the colony of Uganda 1907-1925

Year	Direct Tax (DT)	Indirect Tax (IT)	Other Revenue (ORV)	Total Revenue
1907 - 1912	TLIR	TC + POFF	ORV	ΣDT, IT, ORV
1919 -1925	TLIR	TC + POFF	ORV	ΣDT, IT, ORV

Source: Colonial Africa in Official Statistics, 1821-1953 Volumes, British online Archives. . Uganda Blue Book. Abstract of the Revenue and Expenditure of the colony of Uganda for the year 1907 - 1925.

<https://microform.digital/boa/collections/39/colonial-africa-in-official-statistics-1821-1953/volumes>

Note: **Other Revenue (ORV)** describes all revenues other Than the direct and indirect taxes of the Colony of Uganda.

TLIR = Total License and internal Revenue not otherwise classified (Excluded all the non-tax revenue such as fees, stamp duties and proceed from sales); **TC**= Total of Customs; **POFF**= Post Office; **ORV**=Other Revenue.

Note1 = I excluded all the Revenues from Excises and Fines conflated into TLIR from 1919 to 1925.

Note2= There were no data available for the colony of Uganda in 1913.

Table: Expenditures of the colony of Uganda 1907-1925

Year	JEXP	EEXP	HEXP	PWEXP	PPEXP
1907 – 1912	LD	EDUC	MD + H&D + MDSE	PWD + PWR + PWE	POL + PRIS
1919 -1925	LD	EDUC	MD + H&D + MDSE	PWD + PWR + PWE	POL + PRIS

Source: Colonial Africa in Official Statistics, 1821-1953 Volumes, British online Archives. Uganda Blue Book. Comparative Yearly Statement of the Expenditure of the colony of Uganda for the year 1907 - 1925.

<https://microform.digital/boa/collections/39/colonial-africa-in-official-statistics-1821-1953/volumes>

LD= Legal Department; **EDUC**= Education; **MD**= Medical Department; **H&D**= Hospitals and Dispensaries; **MDSE**= Medical Department Special Expenditure; **PWD**= Public Works Department; **PWR**= Public Works Recurrent; **PWE**= Public Works Extraordinary; **POL**= Police; **PRIS**= Prisons;

Note 1 The Sanitation expenses which I added to Public Expenditures of other colonies are conflated in the case of Tanzania under the rubric Medical and Sanitation. I recorded the expenses under Healthcare Expenses because the proportion of the sanitation expenses was not specified.

Table: **Grant and Loan** of the colony of Uganda 1907-1925

Year	Grants	Loans
1907		

Source: **Source:** Colonial Africa in Official Statistics, 1821-1953 Volumes, British online Archives. Uganda Blue Book. Abstract of the Revenue and Expenditure of the colony of Uganda for the year 1907 - 1925.

Note: There no Imperial Loans granted by to the Colony of Uganda Between 1919 – 1925

The colony of Basutoland (Lesotho)

The intrusion of foreigners into Basutoland dates back to the aggression of southern regional actors such as the Zulu and Matabele to the illegal immigration of Dutch farmers into neighbouring areas of Basutoland in the second half of the 19th century. This led to territorial disputes between the Basuto and the Dutch. Technically, British colonial influence began with the occupation and demarcation of the territorial boundary between Basutoland and the Orange Free State in 1868 and its incorporation into the Cape Colony in 1871.

This manoeuvre led to more than a decade of resistance to the colonial administration of the Cape Colony by the natives, who saw it as interference in their own administration. As a result of native uprisings, the area was placed under British administration in 1884 following the “Gun War” of the 1880s, which ended in 1881. After a series of reforms throughout its colonial history, the colony was finally granted independence by the British in 1966, with King Moshoeshoe the Second as monarch.

Total Net Revenues = [**Direct taxes** (Native tax + License + income tax) + **Indirect taxes** (Total of Customs + Post Office Revenue + wool export duty) + **Other Revenue** (Fees of Court or Office & C + Rents of Government Property Revenue + all other Revenues other than direct and indirect taxes)]

Table: Revenues of the colony of Basutoland (Lesotho) 1926-1929

Year	Direct Tax (DT)	Indirect Tax (IT)	Other Revenue (ORV)	Total Revenue
1926-1929	NT+TLIR+IC	TC + POFF+WED	ORV	ΣDT, IT, ORV

Source: Colonial Africa in Official Statistics, 1821-1953 Volumes, British online Archives. . Basutoland (Lesotho) Blue Book. Abstract of the Revenue and Expenditure of the colony of Basutoland (Lesotho) for the year 1926 - 1929. <https://microform.digital/boa/collections/39/colonial-africa-in-official-statistics-1821-1953/volumes>

Note: **Other Revenue (ORV)** describes all revenues other Than the direct and indirect taxes of the Colony of Basutoland (Lesotho).

TLIR = Total License and internal Revenue not otherwise classified (Excluded all the non-tax revenue such as fees, stamp duties and proceed from sales); **TC**= Total of Customs; **POFF**= Post Office; **ORV**=Other Revenue.

NT = Native tax; **IC** = Income tax; **WED**= Wool export duty.

Table: Expenditures of the colony of Basutoland (Lesotho) 1926-1929

Year	JEXP	EEXP	HEXP	PWEXP	PPEXP
1926 – 1929	AJ	EDUC	MD + LS	PWD + PWR + PWE	POL

Source: Colonial Africa in Official Statistics, 1821-1953 Volumes, British online Archives. Basutoland (Lesotho) Blue Book. Abstract of the Revenue and Expenditure of the colony of Basutoland (Lesotho) for the year 1926 - 1929. <https://microform.digital/boa/collections/39/colonial-africa-in-official-statistics-1821-1953/volumes>

AJ= Administration of Justice; **EDUC**= Education; **MD**= Medical Department; **LS**= Leper Settlement; **PWD**= Public Works Department; **PWR**= Public Works Recurrent; **PWE**= Public Works Extraordinary; **POL**= Police; **PRIS**= Prisons;

Table: **Grant and Loan** of the colony of Basutoland (Lesotho) 1926-1929

Year	Grants	Loans
1927-1930	-	-

Source: Colonial Africa in Official Statistics, 1821-1953 Volumes, British online Archives. Basutoland (Lesotho) Blue Book. Abstract of the Revenue and Expenditure of the colony of Basutoland (Lesotho) for the year 1926 - 1929.

Note: There no Imperial Loans granted by to the Colony of Basutoland (Lesotho) Between 1926 – 1929

The Colony of Bechuanaland (Botswana)

Bechuanaland is a former British colony that was declared a protectorate in 1885 to prevent a takeover by its Matabele neighbours until it gained independence from Britain in 1966. The colonial history of Bechuanaland illustrates the complexity of colonization overall and the flexibility of British colonization compared to French colonization, as King Khama was able to negotiate a protectorate agreement with the British that prevented his entire kingdom from being placed under the administration of the South African Colonial Society. However, part of his territory (the south) was placed under the Cape Colony in 1895.

Prior to 1934, the British interfered little or not at all in Batswana affairs because of the 1891 agreement with the Crown. However, from that point on, Britain enacted a series of reforms that limited the authority of the local leadership. Between 1920 and 1950, a series of laws were enacted that disproportionately favoured the European minority, leading to a series of native demands that eventually resulted in the introduction of a new, self-governing constitution in 1965. A year later, the territory gained its independence from the British.

Total Net Revenues = [**Direct taxes** (Hut tax + License) + **Indirect taxes** (Total of Customs + Post Office Revenue + Revenue Stamp) + **Other Revenue** (Fees of Court or Office & C + Rents of Government Property Revenue + all other Revenues other than direct and indirect taxes)]

Table: Revenues of the colony of Bechuanaland (Botswana) 1903-1912

Year	Direct Tax (DT)	Indirect Tax (IT)	Other Revenue (ORV)	Total Revenue
1903-1912	HT+TLIR	TC + POFF+RS	ORV	ΣDT, IT, ORV

Source: Colonial Africa in Official Statistics, 1821-1953 Volumes, British online Archives. Bechuanaland (Botswana) Blue Book. Abstract of the Revenue and Expenditure of the colony of Bechuanaland (Botswana) for the year 1903-1912.

<https://shorturl.at/bqNP8>

<https://shorturl.at/lsMQ7>

Note: **Other Revenue (ORV)** describes all revenues other Than the direct and indirect taxes of the Colony of Bechuanaland (Botswana).

TLIR = Total License and internal Revenue not otherwise classified (Excluded all the non-tax revenue such as fees, stamp duties and proceed from sales); **TC**= Total of Customs; **POFF**= Post Office; **ORV**=Other Revenue.

HT = Hut tax

RS= Revenue Stamp.

Table: Expenditures of the colony of Bechuanaland (Botswana) 1903-1912

Year	JEXP	EEXP	HEXP	PWEXP	PPEXP
1903 – 1912	AJ	EDUC	MD	PWR + PWE	POL

Source: Colonial Africa in Official Statistics, 1821-1953 Volumes, British online Archives. Bechuanaland (Botswana) Blue Book. Abstract of the Revenue and Expenditure of the colony of Bechuanaland (Botswana) for the year 1903-1912.

<https://shorturl.at/bqNP8>

<https://shorturl.at/lsMQ7>

LD= Legal Department; **EDUC**= Education; **MD**= Medical Department; **PWR**= Public Works Recurrent; **PWE**= Public Works Extraordinary; **POL**= Police.

Table: Grant and Loan of the colony of Bechuanaland (Botswana) 1903-1912

Year	Grants	Loans
1903-1912	-	-

Source: Colonial Africa in Official Statistics, 1821-1953 Volumes, British online Archives. Bechuanaland (Botswana) Blue Book. Abstract of the Revenue and Expenditure of the colony of Bechuanaland (Botswana) for the year 1903-1912.

The colony of Northern Rhodesia (Zambia)

The colonization of Northern Rhodesia began with granting of the mining right of territory by the Crown to the British South African Company in the last decades of the 1800s. At the start of the project, the territory was divided between the North-East and North-West parts and obtained a protectorate status in 1899. It was name Northern Rhodesia in 1911 after unification of both territory and gained independence from the British in 1964. The colony Zambia is the type of colonial state Mkandawire (2010) termed a labour reserve state as it was source cheap labour for mining activities it was known for. The data for the colony were obtained from the colonial Blue Book of Northern Rhodesia.

Total Net Revenues = [**Direct taxes** (Total License and internal Revenue not otherwise classified) + **Indirect taxes** (Total of Customs + Post Office Revenue) + **Other Revenue** (Fees of Court or Office & C + Rents of Government Property Revenue + all other Revenues other than direct and indirect taxes)]

Table: Revenues of the colony of Northern Rhodesia (Zambia) 1923-1930

Year	Direct Tax (DT)	Indirect Tax (IT)	Other Revenue (ORV)	Total Revenue
1923- 1930	TLIR	TC + POFF	ORV	ΣDT, IT, ORV

Source: Colonial Africa in Official Statistics, 1821-1953 Volumes, British online Archives. Northern Rhodesia (Zambia) Blue Book. Abstract of the Revenue and Expenditure of the colony of Northern Rhodesia (Zambia) for the year 1923-1930.

<https://microform.digital/boa/collections/39/colonial-africa-in-official-statistics-1821-1953/volumes>

Note: **Other Revenue (ORV)** describes all revenues other Than the direct and indirect taxes of the Colony of Northern Rhodesia (Zambia).

TLIR = Total License and internal Revenue not otherwise classified (Excluded all the non-tax revenue such as fees, stamp duties and proceed from sales); **TC**= Total of Customs; **POFF**= Post Office; **ORV**=Other Revenue.

Table: Expenditures of the colony of Northern Rhodesia (Zambia) 1923-1930

Year	JEXP	EEXP	HEXP	PWEXP	PPEXP
1923- 1930	JLP	E.EDUC	HD	M&PWD + PWR + PWE	N.POL

Source: Colonial Africa in Official Statistics, 1821-1953 Volumes, British online Archives. . Northern Rhodesia (Zambia) Blue Book. Abstract of the Revenue and Expenditure of the colony of Northern Rhodesia (Zambia) for the year 1923-1930.

<https://microform.digital/boa/collections/39/colonial-africa-in-official-statistics-1821-1953/volumes>

JLP= Judicial Legal and Prison; **E.EDUC**= European Education; **HD**= Health Department; **M&PWD**= Mines and Public Works Department; **PWR**= Public Works Recurrent; **PWE**= Public Works Extraordinary; **N.POL**= Northern Rhodesia Police

Table: **Grant and Loan** of the colony of Northern Rhodesia (Zambia) 1923-1930

Year	Grants	Loans
1923	-	
1924	138000	
1925	100000	
1926	-	
1927	-	
1928	-	
1929	-	
1930	-	

Source: Colonial Africa in Official Statistics, 1821-1953 Volumes, British online Archives. Northern Rhodesia (Zambia) Blue Book. Abstract of the Revenue and Expenditure of the colony of Northern Rhodesia (Zambia) for the year 1923-1930.

The colony of South Africa

British interest before the conquest was confined to the coastal area of South Africa. From the British interest in 1795 until the end of the apartheid regime, the area bore various names. Britain had to wrest power from the Dutch Boers, who were the first Europeans to show interest in the region. The British effort led to a series of violent conflicts between the two protagonists that became known as the Boer Wars until the Boers were finally defeated in the Second Boer War in 1902 (Gooch, 2013).

Before becoming a colony of the Union of South Africa in 1910 and later the Cape Province, which included several colonies, the area was first known as the Cape Colony at the beginning of British rule. In 1934, it was granted sovereign status as part of the Crown Empire in Africa and became a republic in 1961. However, South Africa remained a racial state from 1948, with the beginning of apartheid, until the end of racial segregation in 1994 under the leadership of Nelson Mandela.

Total Net Revenues = [**Direct taxes** (Total License and internal Revenue not otherwise classified+ Land Revenue+ Hut tax) + **Indirect taxes** (Total of Customs + Post Office Revenue + Excise Duty) + **Other Revenue** (Fees of Court or Office & C + Rents of Government Property Revenue + all other Revenues other than direct and indirect taxes)]

Table: Revenues of the colony of South Africa 1900-1905

Year	Direct Tax (DT)	Indirect Tax (IT)	Other Revenue (ORV)	Total Revenue
1900- 1905	LR+HT+TLIR+IC	TC + SR+POFF+ED	ORV	ΣDT, IT, ORV

Source: Colonial Africa in Official Statistics, 1821-1953 Volumes, British online Archives. South Africa Blue Book. Abstract of the Revenue and Expenditure of the colony of South Africa for the year 1900-1905.

<https://microform.digital/boa/collections/39/colonial-africa-in-official-statistics-1821-1953/volumes>

Note: Other Revenue (ORV) describes all revenues other Than the direct and indirect taxes of the Colony of South Africa.

TLIR = Total License and internal Revenue not otherwise classified (Excluded all the non-tax revenue such as fees, stamp duties and proceed from sales); **TC**= Total of Customs; **POFF**= Post Office; **ORV**= Other Revenue; **ED** = Excise Duty; **HT**= Hut Tax; **LR**= Land Revenue; **IC**= Income Tax; **SR**= Stamp Revenue

Table: Expenditures of the colony of South Africa 1900-1905

Year	JEXP	EEXP	HEXP	PWEXP	PPEXP
1900- 1905	JD	S&EDUC	MD	RWM + BRB	POL&G

Source: Colonial Africa in Official Statistics, 1821-1953 Volumes, British online Archives. South Africa Blue Book. Abstract of the Revenue and Expenditure of the colony of South Africa for the year 1900-1905.

<https://microform.digital/boa/collections/39/colonial-africa-in-official-statistics-1821-1953/volumes>

JD= Judicial Department; **S&EDUC**= Science and Education; **MD**= Medical Department; **RWM**= Railways, Working and Maintenance; **BRB**= Buildings, Roads and Bridges; **PWE**= Public Works Extraordinary; **POL&G**= Police and Gardes

Table: Grant and Loan of the colony of South Africa 1900-1905

Year	Grants	Loans
1900-1905	-	

Source: Colonial Africa in Official Statistics, 1821-1953 Volumes, British online Archives. South Africa Blue Book. Abstract of the Revenue and Expenditure of the colony of South Africa for the year 1900-1905.

IMPORTANT NOTE:

As you will notice, I have calculated police and prison expenditure for some colonies but not for others due to data availability. However, this does not affect the data set or the outcome of the regression, as this variable was not of interest in this thesis. The data on police and prison expenditure was therefore only used as additional information for the reader and for future research by the author.

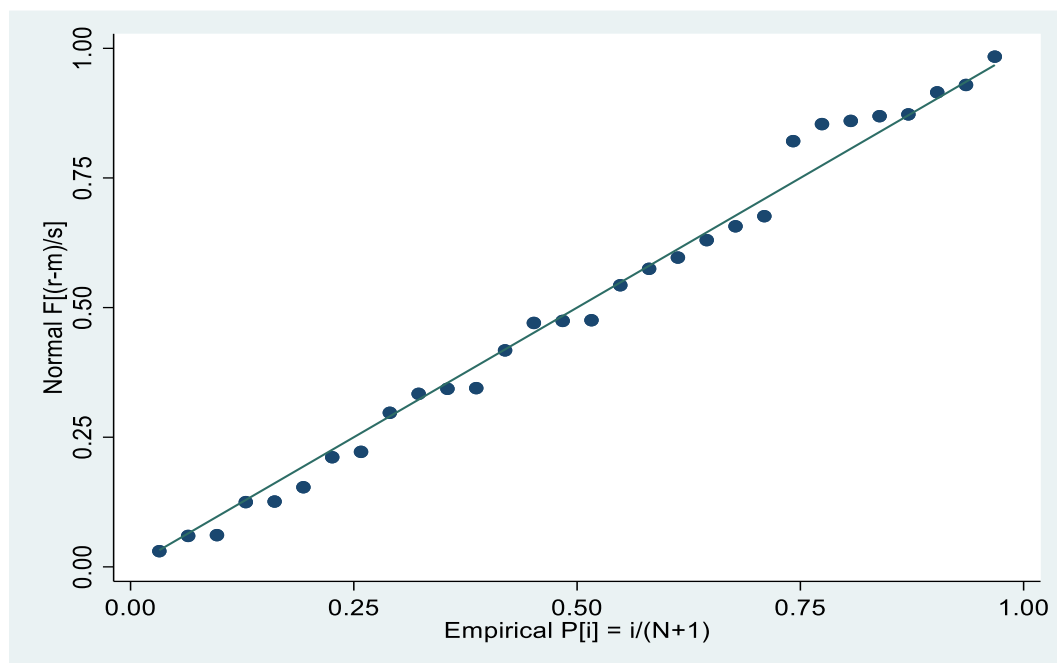
2. Normality of the error distribution

To determine the normality of my data, I have referred to `pnorm` and `qnorm` for the normality of the error distribution in section 11 under Normality of the error distribution. The `pnorm` command creates a plot of the standardized normal probability, while `qnorm` plots the quantiles of a variable against the quantiles of a normal distribution. The `pnorm` is sensitive to non-normality in the center of the data and the `qnorm` is sensitive to non-normality near the tails. As Figure APDX 1 shows, the `pnorm` of the regression model has a slight deviation in the middle, which can also be seen in the `kdensity` plot, but which is not so significant that one could say that the data are not normally distributed.

The representation of the `qnorm` of the regression model also shows a noticeable deviation in the tail area of Figure APDX 2, as can also be seen in the `qdensity` representation, but this is also not significant. Perhaps this is due to the 2 missing values in my control variable data.

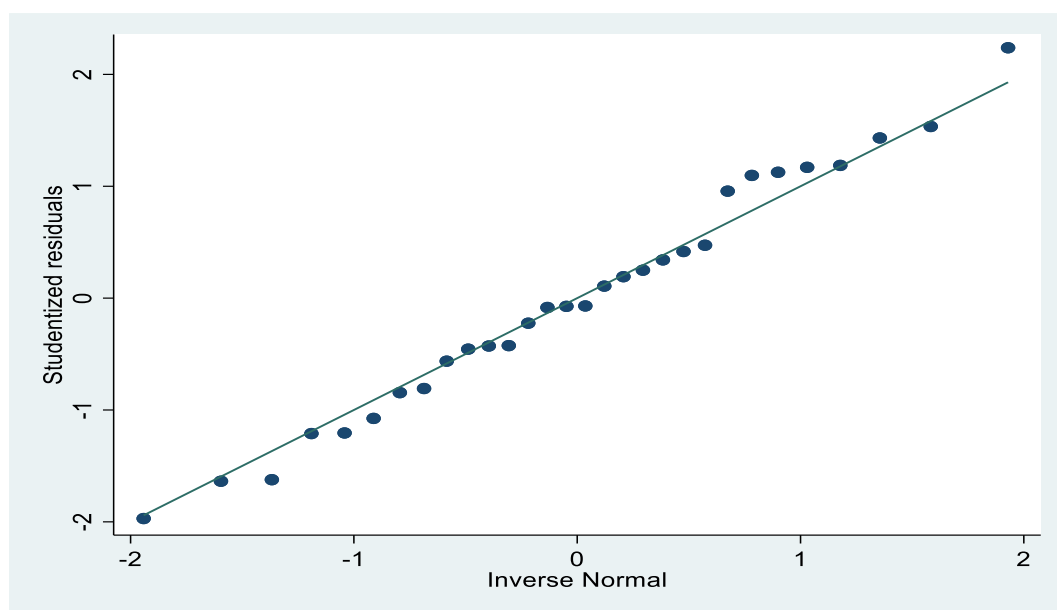
However, there are also numerical tests to check for normality, such as the iqr test, which can be downloaded from Stata by searching for iqr. It stands for interquartile range and assumes symmetry of the distribution.

Figure APDX 1: Normality test of the error distribution with pnorm



Source: Derived from Stata using the author dataset.

Figure APDX 2: Normality test of the error distribution with qnorm



Source: Derived from Stata using the author dataset.

