

**Does Colonizer Identity Affect Present-day Development Outcomes in Former Portuguese,
French, and British Colonies in Sub-Saharan Africa?**

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Abstract

This thesis assesses whether former colonial power identity (Britain, France or Portugal) matters in determining contemporary development outcomes in Sub-Saharan Africa. Using both empirical data and literature, it compares development through two measures: log GDP per capita and Human Development Index (HDI). Drawing on regression models used for a sample of 35 former colonies, the research reaches a conclusion that there is no statistically significant effect of colonizer identity on contemporary development outcomes. However, institutional quality, measured through a rule of law index, appears as an important and robust predictor of both HDI and log GDP per capita. These results support institutionalist theories of development that would lead one to expect that the quality of institutions rather than colonial origin matters more for long-run growth. Although the analysis fails to show the direct effect of colonial identity, it acknowledges the structural and ongoing effect of colonialism in the form of economic dependence, geopolitical ties, and inherited institutional frameworks.

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Does Colonizer Identity Affect Present-day Development Outcomes in Former Portuguese, French, and British Colonies in Sub-Saharan Africa?

The long-lasting impact of colonial rule on the development of Sub-Saharan African states has been widely studied (Acemoglu, Johnson, & Robinson, 2001; Bolt, Gardner, Kohler, Paine, & Robinson, 2022; Grier, 1999). Yet important differences remain in how specific colonial powers shaped the economic, political, and institutional landscapes of their former territories. While colonialism is often discussed broadly, it is important to recognize that not all colonial experiences were the same. The colonial strategies implemented by different European powers varied, which could have heavily influenced the trajectory of post-colonial institutions, governance structures, and economic performance. For example, the methods used by colonial power differed according to their identity in terms of the degree of violence, the duration of colonialism, the extent of exploitation of former colonies, and the type of rule (direct or indirect) they imposed (Ziltener, Künzler, & Walter, 2017).

The research question guiding this study is: "Does the identity of the colonizer affect current development outcomes in Sub-Saharan Africa, in the case of former Portuguese, French and British colonies?"

In this study, “development¹” refers to the long-term economic, social, political, and institutional transformation of Sub-Saharan African states following independence, as shaped by the legacy of colonial rule. It encompasses outcomes such as GDP per capita, state capacity, institutional effectiveness, and socioeconomic performance (McKenzie & Paffhuasen, 2017).

¹ This definition is specifically tailored to the scope of this research and draws on insights from The Committee for the Prize in Economic Sciences in Memory of Alfred Nobel (2019), as well as conceptual frameworks by economists Todaro & Smith and Banerjee & Duflo (McKenzie & Paffhuasen, 2017).

The implications of colonialism were not only limited to outcomes in governments and economies. European powers left behind a legacy of the colonization epoch in human development through education and health systems (Grier, 1999; Tilley, 2016). Therefore, this paper's research includes measuring the Human Development Index (HDI) of former colonies and examining how the identity of the colonizers influenced the shaping of these systems and their long-term effects on development.

The historical scope of this research begins with the Berlin Conference of 1884–1885, which marked the onset of formal European colonial rule in Africa (Nunn, 2006). By tracing the impact of colonial institutions from this period to the present, the study aims at establishing a historical link between colonial governance strategies and contemporary development outcomes. Geographically, the study focuses exclusively on Sub-Saharan Africa (SSA), specifically former British, Portuguese and French colonies, to allow for a systematic comparison of their colonial legacies. The choice of French, Portuguese and British colonial powers is due to the fact that these were the most present European powers in SSA². It is interesting to research on SSA because it is a region where different colonial powers were present, and where development outcomes vary starkly across countries. This makes it relevant to isolate how colonial identity established path-dependent trajectories for these countries.

This research is particularly relevant in light of a recent study (Bolt, Robinson et al., 2022) about the impact of colonialism in Africa, highlighting the need for further research that compared outcomes in former colonies across colonial empires. As a response to this, my paper's primary contribution is its comparison of the impacts of Portuguese, French, and British colonial rule on Africa's post-independence development. By contrasting and comparing the strategies and results of these three colonial powers, it closes a gap in the literature. Although Bertocchi and Canova (2001) argue that colonial policies had a long-lasting effect on GDP growth rates, prior research has found

² While other powers also held colonies in Sub-Saharan Africa, like Spain, Germany, The Netherlands and Belgium, their number of colonies was relatively limited. This restricted presence does not significantly contribute to the study's objectives, aside from potentially complicating findings.

it difficult to distinguish how colonial identity (specifically) influenced these results. The purpose of this paper is therefore to investigate further how colonial identity shapes the present development outcomes of their colonies. In fact, the literature is quite ambiguous when assessing the importance of colonizer identity on present-day outcomes. Some studies (such as Grier, 1999; Bertocchi & Canova, 2001) place greater emphasis on the colonizer identity in order to explain contemporary development patterns, while others (such as Maseland, 2017) downplay its influence on development. Another contribution of this paper is its exclusive focus on Sub-Saharan Africa, drawing insights from a geographically specific region. This is important because influential studies on development and colonialism (e.g. Acemoglu et al.'s (2001) *The Colonial Origins of Comparative Development*) take a broader cross-regional approach, analyzing former European colonies worldwide. By narrowing scope, this paper allows for more context-specific findings. Additionally, the paper adds value by going beyond conventional development indicators. Instead of focusing solely on traditional measures like GDP and GDP per capita, which dominate much of the literature (e.g., Acemoglu, 2001; Barro, 1991; Grier, 1999) it incorporates the Human Development Index (HDI). This approach provides a better understanding of post-colonial development outcomes. Lastly, this paper contributes to current literature by using more recent data. Renown studies are less recent and therefore use data that's less up to date. For instance, this study uses GDP per capita in the year 2023, whereas data from other studies either predate or date from 1995 (Bertocchi and Canova, 2001, Acemoglu et al., 2001).

Methodologically, this paper employs a mixed-methods approach, combining literature review and quantitative analysis. This study examines the impact of colonial identity on development in Sub-Saharan Africa using ordinary least squares (OLS) regression analysis in RStudio. Two models are employed. The baseline model, analyzes the effect of colonial identity (Portuguese, French, British) on the natural logarithm of GDP per capita in 2023. The extended model takes into account not only the identity of the colonizer but also a rule of law estimate to assess its influence on economic and human development (through GDP per capita and HDI,

respectively). This approach allows for an analysis of how colonial identity and institutional quality shape development outcomes.

The findings indicate that, in the used sample, colonial identity does not significantly affect development outcomes in Sub-Saharan Africa. In the baseline model, former French and Portuguese colonies show lower GDP per capita compared to British colonies, but these differences are not statistically significant. The models also have low explanatory power. In the extended model, rule of law emerges as a significant predictor of log GDP per capita indicating that stronger institutions lead to better economic performance. Similarly, the analysis of the Human Development Index reveals no significant impact from colonial identity, while rule of law shows a positive relationship with HDI. Overall, these findings highlight that institutional quality is a more critical determinant of development than colonial identity.

This paper is divided into seven sections. First, it presents a literature review that gathers finds from other studies in the field of development economics and colonialism. The literature review is composed of multiple sections. Part one concerns the colonial legacies left in Sub-Saharan Africa that persist today. Part two regards specifically colonizer identity, the focus of this paper. The next three sections analyze Portuguese, French and British colonial rule respectively. These sections aim at providing insight into the details of each colonial rule shaping the specificities of their colonial identity, which will help understand the historical context of the findings. Findings are presented in section five, preceding a discussion that interprets findings, situates them in the literature, and addresses the study's limitations. The last section is the conclusion of the paper.

I. Colonial Legacies in African development

The effects of colonial rule on the political and economic development of African states have been widely debated in academic literature. Indeed, scholars argue that colonial institutions, economic structures, and social policies established during European rule have continued to shape post-colonial trajectories (Grier, 1999; Acemoglu et al., 2001; Bertocchi and Canova, 2001). However, different colonial powers implemented distinct governance and economic strategies (e.g. degree of resource extraction, investment, trade policy, ruling systems, education) which in turn produced varying development outcomes (Ziltener, Künzler, & Walter, 2017). This section presents a review of the literature, focusing on different aspects of post-colonial development: political institutions (1.1), economic development (1.2), health, and education (1.3).

1.1. Institutional Persistence and State Capacity of Former Colonies

In order to understand the focus of this essay, it is necessary to recognize the important role of colonial institutions in shaping the paths for development in Sub Saharan African countries. Thus, this paper defines institutions as the frameworks that structure economic and political interactions. They include property rights systems, constraints on state power, and market regulations (Acemoglu et al., 2005). By such means, institutions shape incentives, investments, and determine resource allocation (Acemoglu et al., 2005). Strong institutions foster growth by enabling innovation and productive activity, while weak or extractive institutions undermine development by privileging rent-seeking over broad-based prosperity (Acemoglu et al., 2005).

Institutional structures established during colonial rule often persist long after independence due to significant economic and political constraints. Acemoglu et al. (2001) identify three mechanisms that drive this persistence. First, the cost of institutional change (1) discourages

post-independence leaders from reforming existing systems, especially if they benefit from extractive institutions inherited from colonial rule. Second, the size of the elite (2) matters because a larger elite has incentives to maintain extractive institutions to concentrate wealth and power. Finally, investments made under existing institutional frameworks (3) reinforce the status quo because individuals and businesses prefer stability over uncertain reforms (Acemoglu et al. 2001). These mechanisms help explain why colonial-era institutions continue to shape development. Acemoglu, Johnson, and Robinson (2002) propose that colonial powers established institutions based on the feasibility of European settlement. In areas where Europeans faced high mortality rates due to tropical climates and diseases (e.g. West Africa, the Caribbean), they set up extractive institutions that focused on resource exploitation rather than state-building. In contrast, in areas where Europeans faced low mortality rates (e.g. United States, Australia, New Zealand), they set up inclusive institutions, modeled on the ones in Europe. These institutions, according to their research, persisted beyond independence, shaping modern governance structures and contributing to political instability. Wu (2024) expands on this theory, arguing that colonial administrative structures were inherited by post-independence African states with minimal reform. This has led to outcomes such as authoritarian governance and weak state capacity. Wu's research also highlights that inherited colonial borders contribute to security issues like terrorism and civil wars, once again connecting colonial rule to the pattern of low state capacity observable today in Sub-Saharan Africa. Additionally, the legacy of a centralized bureaucratic autocracy from colonial times became deeply rooted into post colonial African politics, with new elites suppressing political opposition through violence, and manipulated elections. Similarly, Tati (2018) asserts that post-colonial African states were not a total break from the colonial state but rather a continuation of colonial bureaucratic and institutional frameworks. This is significant because it explains why many African governments still rely on repressive governance mechanisms and why democratic institutions have struggled to arise. A study by Bertocchi and Canova (2001) reveals that corruption, distorted government policies, political instability, and ethnic conflict significantly contribute to the

heterogeneity of Africa's growth, with roots traceable to the colonial era. Their research highlights that colonial domination led to societies vulnerable to rent-seeking behavior and ethnic tensions, leading to governance failures in the post-colonial period. Other scholars support this idea: Bolt et al. (2021) argue that colonial rule set a precedent of mass coercion and resource extraction over public good provision, which led to weakened state legitimacy. By prioritizing economic exploitation, colonial governments failed to develop quality governance systems and left post-colonial leaders with fragile institutions.

1.2 Colonialism and Post-Independence Economies

Colonial economic policies played a fundamental role in shaping modern African trade patterns and economic dependency. For example, Bertocchi and Canova (2001) introduce the concept of the "drain of wealth," arguing that colonial powers extracted surplus wealth from their African colonies through mechanisms such as taxation, trade restrictions, and forced labor. They argue that African economies victims to extractive industries (measured by colonial power's degree of economic penetration) have continued to experience economic weaknesses post-independence. Nunn (2007) says that colonialism had a lasting impact on Africa's economic development by disrupting the way societies worked. Before Europeans arrived, African societies were more stable and productive. Colonial rule and extraction made productive work such as agriculture and trading less rewarding compared to unproductive activities. Over time economies got stuck in a low-performance equilibrium, where survival and short-term gain were preferred over building prosperity. After colonialism ended, countries stayed stuck in low equilibriums, explaining why some African nations struggle economically nowadays. Building on this, Tadei (2021) argues that colonial economic policies structured colonies' economies to serve the interests of their colonizers. Trade policies varied depending on regions within Africa, but they overall hindered the economies, limited producers' compensations and created dependency. In support of this, Settles (1996) draws

the conclusion that colonialist policies destroyed trade networks within Africa, and set a persistent legacy of African states remaining export oriented after independence. The overemphasis on the production of raw materials that stemmed from colonial policies, is also said to have stifled industrialization, leaving Africa lagging behind in terms of technology (Settles, 1996).

1.3 Colonial Legacies in Education and Health

In a paper by Acemoglu and Dell (2010) the authors confirm that human capital is of great importance in driving economic growth. Specifically, Barro (1992) precises that human capital (in the form of education) matters for economic growth by enhancing productivity, facilitating technological adoption, and improving institutional efficiency (Barro, 1992). A paper by Glaeser (2004) emphasizes that colonial powers that established institutions prioritizing education and social investment fostered better long-term development outcomes for the colonies. This investment in education is recognized as a strong driver of economic growth and political reform. Building on this Wietzke (2014), highlights that education was often religious (christian), and left inequality among regions in SSA, because schools were not evenly distributed. In contrast, Bertocchi and Canova (2001) say that the colonization process negatively impacted human capital accumulation, due to forced labor practices and ineffective educational policies that limited access to education. Notably, formal education in the colonies during the 19th and 20th centuries was predominantly provided by Christian missionaries, showing the colonial legacy rooted into the educational environment in Sub-Saharan Africa at the time. Moreover a paper by Cogneau (2003) brings into account that colonial schooling did not lead to greater growth or governance by itself. This paper emphasized that education's impact was neutralized by weak institutions and post-colonial policies. For instance, Bolt and Cilliers (2025) find that many African countries inherited weak, racially segregated, urban-centred and solely curative health systems. These systems lacked preventive care and equitable access that was needed to achieve long-term development improvements.

Section I showed how colonial legacies had effects that persisted in economic development and human welfare, thus, it justifies this paper's focus on log GDP per capita and HDI as variables to quantify these long term impacts.

II. Colonizer Identity

There is a debate in colonial development literature concerning whether the identity of the colonizer significantly impacts post-independence economic and political outcomes. Indeed, literature is divided between studies that either support (e.g. Grier, 1999; Bertocchi & Canova, 2001) or deny (e.g. Acemoglu, 2001; Maseland, 2017) that colonizer's culture and identity shapes outcomes in their former colonies. In this section, I will first engage with the literature that suggests the colonizer's identity does not significantly impact post-colonial outcomes. Then, I will present the different arguments and literature that find that the colonizer's identity matters for development, which justify my research. Empirical research is presented in the seventh section of this paper, aiming at assessing the role of colonizer identity in explaining development outcomes in the case of Sub Saharan Africa.

2.1 Revisiting Arguments Against the Importance of Colonizer Identity in Explaining Development Outcomes

In their paper *The Colonial Origins of Comparative Development* (2001) Acemoglu, Johnson, and Robinson argue that colonial identity is not a factor that significantly impacts former colonies' income per capita once institutions are accounted for. Their study suggests that neither the colonizer's identity, the proportion of Europeans in a population, nor religious composition meaningfully influence long-term economic development. Instead, they claim that economic

institutions (property rights and governance systems) are the sole determinants of post-colonial growth. While they acknowledge that ideological differences can shape policies, they dismiss the idea that colonial identity alone explains the institutions (and thus development outcomes) that were implemented across countries.

However, Acemoglu et al.'s global comparison includes settler colonies like the United States (US), where Europeans established inclusive institutions, skewing their overall findings. Bertocchi and Canova (2002), support this argument. In their paper, they say that Acemoglu's findings are partially influenced by the inclusion of "white colonies" (e.g. US, Australia, New Zealand) in their study, which do not reflect the characteristics of the colonies in studies limited to Sub-Saharan Africa. Their argument against the importance of colonial identity is also based on the fact that the same colonial power (e.g. the British) established different economic institutions (extractive or inclusive) across diverse regions. However, this implies that, according to Acemoglu's paper it is worth looking into colonizer identity when focusing on a single geographic region like Sub-Saharan Africa, where conditions were more homogenous and similar institutions were seemingly set up. Additionally, as Ziltener, Künzler, and Walter (2017) argue, colonial powers differed in use of violence, duration of their rule, level of exploitation, and ruling strategies. These differences suggest that the identity of the colonizer could have played a role in shaping the institutions that Acemoglu's paper gives the primary importance to. Therefore, it can be useful to explore the specific characteristics of each colonial power to better understand how institutional legacies were formed and how they continue to influence development outcomes in Sub-Saharan Africa.

Thus, further studying the significance of colonizer identity is relevant due to its focus on the specific approach to Sub-Saharan Africa.

2.2 Literature Supporting the Importance of Colonial Identity in Shaping Present-day Development Outcomes

Klerman et al., (2001) give importance to colonial identity. They argue that colonizers differed in their broader policies, including investments in education, public health, infrastructure, and governance. The study supports this claim by demonstrating that colonies with different legal systems (i.e. French civil law that was imposed by other non-French colonizers, and British common law) performed similarly in terms of economic growth. The paper concludes that colonial identity (here, the colonizer specific institutional and policy choices), rather than legal origin, is the more influential factor in explaining development disparities (Klerman et al., 2001). On the same note, additional studies show that the colonizing country has a significant impact on the colony's legal system (La Porta et al., 1998 & 1999).

Research by Nunn (2006) links the identity of its conquerors to Africa's present underdevelopment. For example, Portuguese colonies saw some of the most severe economic exploitation, which led to a higher persistence of poverty over the long run than former French colonies. This finding is reinforced by Bertocchi and Canova (2001), who quantified the effects of colonial heritage on economic growth. Their study used multiple indicators (political status, economic penetration, institutional quality) to assess how colonial legacies influenced Africa's economic trajectory. Similar to Nunn's findings, the study found different levels of economic extraction depending on who the colonizers were. Colonial powers who most exploited economies of colonies left them with weaker economic performance after independence. The study also demonstrated that the colonizer identity indicator (dummy) had long-term effects on investment rates, school attainment, and ethnic fractionalization. Although these findings do not make direct comparisons between colonizers in terms of magnitude, they illustrate general patterns of investment and extraction. According to Grier (1999) the identity of the colonizing power also had a profound impact on education policies and human capital development post-independence. His

paper says that colonial identity was a strong predictor of post-colonial educational attainment and literacy rates. His research found that colonial education policies varied across colonies with some powers investing more in schooling than others. However, many prioritized training a small elite over broad access, leading to uneven literacy rates and limited long-term benefits. These disparities persist today, as former colonies still struggle with educational inequality and underdeveloped human capital (Grier, 1999).

Overall, these papers support the idea that colonial identity shaped institutional development in ways that persisted long after independence.

III. Portuguese Colonial Rule

In the following section, this paper finds that Portuguese colonial rule in Africa was characterized by direct governance, economic extraction, and a lack of institutional development leaving its former colonies with weak state structures, economic stagnation, and educational underinvestment (Bandeira Jerónimo, 2018). Unlike other colonial powers, Portugal retained control over its African territories until the mid-1970s, long after most European empires had granted independence to their colonies (Aires Oliveira, 2017). This delay in decolonization, combined with the absence of investment in human capital and weak governance systems, has had lasting effects on the development of Portuguese-speaking African countries.

3.1 The Impact of Portugal's Colonial Legacy on Governance in Former Colonies

In the paper *Portuguese Colonialism in Africa*, the author, Bandeira Jerónimo describes Portuguese colonialism in Sub-Saharan Africa as authoritarian and exploitative. Control in the former Portuguese colonies was characterized as “direct rule”, with power being held in the

Portuguese metropole. Colonies inherited weak rule of law, due to the colonial administrations neglecting the set up of inclusive institutions, since they were only focused on extraction rather than sustainable investment (Bandeira Jerónimo, 2018). Indeed, the colonial state relied heavily on forced labor and taxation to maintain its hold over its territories. The Portuguese did not build robust state institutions. Tati (2018) argues that the post-colonial governance crisis in Angola, Mozambique, and Guinea-Bissau comes from the lack of a smooth transition from colonial rule to independent state institutions. Even after independence, Portugal had left behind weak institutions that could not maintain political stability, leading to internal conflicts and coups.

Portuguese-speaking African nations have experienced high levels of political instability and corruption. Limited investment in education, infrastructure, and the creation of local elites led to unprepared post-colonial governance (Mormul, 2018). Former Portuguese colonies face governance challenges due to colonial underinvestment in institutions and post-independence conflicts. In fact, political instability stemmed from abrupt decolonisation (due to the end of the Portuguese dictatorship), civil wars following independence, and weak institutions. This unstable political climate entrenched corruption (Mormul, 2018).

3.2 Economic and Social Consequences

Portuguese colonial rule was narrowly focused on resource extraction. This left former colonies dependent on primary exports (Bandeira Jerónimo, 2018). Moreover, forced labor minimized the development of human capital, leaving countries with an underdeveloped workforce. Due to these reasons, former Portuguese colonies were left with unstable economies, to which independence wars also contributed (Bandeira Jerónimo, 2018). Nunn (2007) connects this extractive economic model to the long-term economic stagnation of Portuguese colonies. Essentially, with little investment in infrastructure, industry, or human capital, these economies remained vulnerable to commodity price fluctuations, reinforcing underdevelopment and economic

instability. Bertocchi and Canova (2001) further demonstrate that former Portuguese colonies have lower GDP per capita and weaker economic growth rates compared to former French and British colonies. This is due in part to the (previously mentioned) neglect of economic infrastructure, which resulted in minimal industrial development and a reliance on agricultural and mineral exports. Mormul (2018), however, emphasizes the idea that although former Portuguese colonies were left with lower development potential, their colonisation history can also be seen as a development benefit, because these countries now cooperate on the basis of their shared history and language (Mormul, 2018).

Another legacy of Portuguese colonial rule is the lack of investment in education (Bandeira Jerónimo). The little education provided, was largely delegated to missionaries and had limited access for Africans. Non-missionary schooling was rarer, and merely focused on literacy (not real higher or skills education). Post independence, Portuguese former colonies inherited low literacy rates and weak human capital, which hindered development. Such an underdeveloped education system was hard to develop for post-colonial governments (Bandeira Jerónimo). Acemoglu and Dell (2010) support the idea that countries who adopted weak educational foundations tend to experience lower productivity and slower economic growth, reinforcing the argument that Portuguese colonial policies have had lasting negative effects on human capital development. Regarding the health services, these were minimal and favoured settlers only with little to no regards to native populations. Disease outbreaks were poorly managed. The weak healthcare infrastructure left by Portuguese colonialism contributed to low life expectancy that still persists (Bandeira Jerónimo, 2018).

IV. French Colonial Rule

The following section analyses French colonialism in Sub-Saharan Africa. This part of the paper finds that French rule was also characterized by direct rule, military dominance, and economic monopolization (Grier, 1999; Manning, 1998). Unlike the neglectful and extractive Portuguese model, the French system established centralized governance structures and a strong legal framework (Manning, 1998). However, this came at the cost of political restrictions, economic dependence, and education systems that reinforced elite rule (Grier, 1999; Manning, 1998).

4.1 The Impact of France's Colonial Legacy on Governance in Former Colonies

In a paper about francophone Sub-Saharan Africa, the author Patrick Manning (1998) notes that the French system of direct rule followed a highly centralized governance model, with a significant European administrative presence. France organized its colonies into federations, such as French West Africa, with its capital in Dakar. The author also notes that French colonies had high numbers of European administrators and that African political activity was tightly restricted. Africans were treated as subjects and not citizens, so they were denied political rights (Manning, 1982). Colonies with higher numbers of European settlers tended to develop more unequal and corrupt colonial institutions (Angeles & Neanidis, 2015). As discussed previously, institutions persist despite independence, resulting in similarly post-independence systems in terms of governance and political stability. Avery (2018) finds that the French administration relied on manipulating ethnic groups to maintain control. Colonizers would create or exacerbate differences across populations for it to be easier to gain control over land and resources. This strategy was more pronounced in former French colonies (compared to British and Portuguese colonies), contributing to long-term political divisions post-independence. Additionally, the French placed strong emphasis

on military governance. Manning (1998) notes that French colonial armies were larger, and military expeditions were common. This context left a legacy of militarized governance that reinforced authoritarian tendencies post-independence (Manning, 1998). France's former colonies remained dependent on France politically and economically. This persistent political and economic dependency "called Françafrique" remains a defining feature of post-colonial governance in French-speaking Africa (Vershave, 1998).

4.2 Economic and Social Consequences

French economic policies were tightly controlled through trade monopolies, tariffs, and forced economic dependence. Tadei (2021) highlights that French colonies were forced to trade exclusively with France, restricting their economic autonomy. Grier (1999) says that tariffs and trade restrictions locked African economies into raw material exports, preventing industrialization and economic diversification. Like most colonialism in Sub-Saharan Africa, French colonialism prioritized extraction over development, and colonies' main objective was to enrich the metropole. African labor was exploited, tax systems were imposed to fund colonial administration, and colonies became financially dependent on France (Manning, 1998).

Regarding health systems, these were not a priority for the colonizers, as economic and military policies took precedence. African colonies received minimal health care, and there was a lack of infrastructure (Vershave, 1998). According to Naumann and Joshi (2021) colonialism was a determinant of health crises in colonized regions. Colonization is also said to have exacerbated health issues due to forced labor, malnutrition and displacement. Vershave (1998) claims that even-post independence, the French ignore real health needs of the population and instrumentalize aid to continue to have influence over former colonies.

Education was a central pillar of the French assimilationist colonial policy. Grier (1999) argues that French colonial governments prioritized state-run schools over religious education. However,

access was highly restricted, with schooling reserved for colonial elites. By the 1960s, up to 95% of the population in former French colonies was still illiterate. The system created an educated elite but did little to improve mass literacy, reinforcing economic inequality post-independence.

V. British Colonial Rule

British colonialism's distinctions such as relative decentralization (indirect rule), emphasis on education, and less extractive economic policies distinguish it from other imperial regimes of the time. These differing characteristics led to rather favourable economic and social development trajectories, despite regional variation.

5.1 The Impact of Britain's Colonial Legacy on Governance in Former Colonies

In contrast to the French and the Portuguese, British rule was characterized by decentralized governance, allowing for greater local autonomy for domestic policies (Grier, 1999). The indirect rule that the British implemented in their colonies facilitated the inclusion of locals in ruling systems. This had beneficial effects on political and institutional stability for the post-independence era (Bertocchi & Canova, 2002). However, Maseland (2017) and Bolt et al. (2021) note that the British indirect rule, which gave natives certain legal and administrative powers, was not uniformly applied. And, although indirect rule's outcomes were mostly perceived to be positive, research by Wu (2024) suggests that ex-British colonies are more prone to inter-communal violence compared to former colonies of other European powers.

5.2 Economic and Social Consequences

Both academic papers by Grier (1999) and Bertocchi and Canova (2002) state that former British colonies generally outperformed others (Portuguese and French colonies) in post-independence growth. These outcomes are mostly due to less extractive economic structures, more decentralized governance, and more trade. British colonies also experienced infrastructure development, such as railroad and trade networks (Grier, 1999). Tadei (2021) finds that British West Africa, surrounded by French colonies, contrasts with its neighbours by being more committed to free trade. In British West Africa, trade was characterised by being monopsonistic (limited to a single buyer) and high profit margins for firms. Though, trade areas were limited to where European colonizers settled. This is reflected in discrepancy between more developed areas and others that were left behind (Tadei, 2021). Other reasons for the better outcomes of British colonies, cited in the two papers mentioned, are lower levels of resource drain and smoother transitions to independence, contrasting Portuguese colony's independence wars (Grier 1999; Bertocchi and Canova, 2002). Research by Grier (1999) shows that British educational systems were characterized by higher literacy rates and more inclusiveness to local populations than other colonial powers. Educational systems in British Sub-Saharan Africa were of higher quality, due to greater investment in primary education and local teacher training. The author supports the idea that higher education levels at independence translated into economic growth post-colonialism (Grier, 1999).

As for health systems in British Sub Saharan Africa, Bolt & Cilliers (2025), report that colonial health systems were initially designed to serve settlers, not the indigenous population. Healthcare was also not preventive, but rather curative and medical structures were mostly placed in urban areas. Colonial governments were reluctant to invest in health in the colonies, and left behind underdeveloped, geographically unequal health systems (Bolt & Cilliers, 2025; Tilley, 2016).

VI. Methods and Data

6.1 Models and method

To explore the effect of colonial identity on development in Sub-Saharan Africa, this study employs the following regression models, estimated using ordinary least squares (OLS) in RStudio:

Model 1 (Baseline):

$$DEV_i = \alpha_0 + \alpha_1 P_i + \alpha_2 F_i + \epsilon_i$$

Model 2 (Extended):

$$DEV_i = \beta_0 + \beta_1 P_i + \beta_2 F_i + \beta_3 RoLi + \epsilon_i$$

The equations model national development (DEV_i). In each equation, i denotes the country as a function of colonial and institutional factors. The dependent variable (DV) DEV captures development through two measures: the log of GDP per capita (in the year 2023), and the Human Development Index (HDI) of each colony in the year 2023. P and F represent dummy variables indicating whether a country was colonized by Portugal or France, respectively. British colonies (B) are the omitted reference category. The coefficients α (Model 1) and β (Model 2) estimate intercepts and slopes. The models also include error terms, ϵ_i and ϵ_i . RoL (Rule of Law) measures institutional quality, added in Model 2 to test its direct effect on development. The reason why two models are run is because the baseline model isolates the colonizer independent variable, and the extended version assesses whether institutional quality explains development beyond the colonizer's identity.

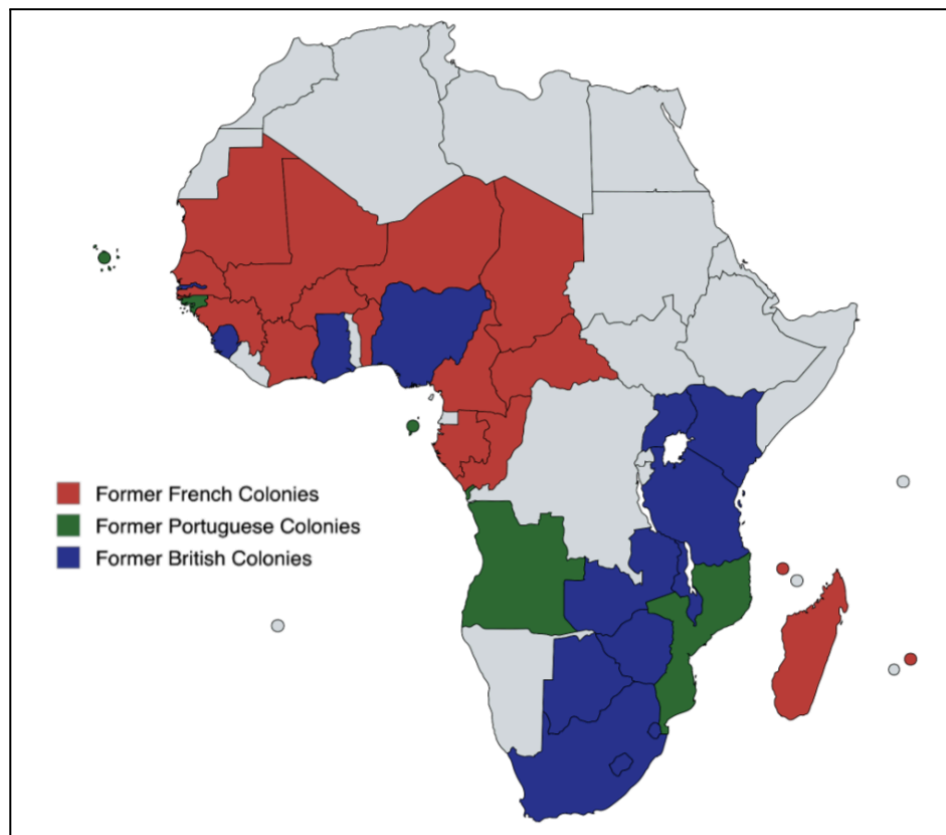
6.2 Sample

This study will analyze a dataset of 35 former colonies (5 Portuguese, 14 British, and 16 French) in Sub-Saharan Africa. Specifically, the sample includes: *Angola, Benin, Burkina Faso, Botswana, Central African Republic, Côte d'Ivoire, Cameroon, Congo (Rep.), Comoros, Cabo Verde, Gabon, Ghana, Guinea, Gambia, Guinea-Bissau, Kenya, Lesotho, Madagascar, Mali, Mozambique, Mauritania, Mauritius, Malawi, Niger, Nigeria, Senegal, Sierra Leone, São Tomé and Príncipe, Eswatini, Chad, Tanzania, Uganda, South Africa, Zambia, Zimbabwe.*

The map below (Figure 1) presents former Sub-Saharan African colonies categorized by their former colonial ruler.

Figure 1

*Former Sub-Saharan African Colonies by Colonial Power*³



³ **Note:** The countries shaded in grey are excluded from this research due to various reasons: they fall outside the geographical scope (North Africa), were colonized by other powers not included in this study (such as Spain, Belgium, or Germany), or were either only briefly colonized or not fully colonized by the powers under investigation.

6.3 Variables

The dependent variables in this study are Log GDP per capita (2023) and the Human Development Index (HDI) from the year 2023. Log GDP per capita is the natural logarithm of GDP per capita measured in Purchasing Power Parity (PPP) terms (current international \$), sourced from the World Bank (World Bank, n.d.). The log transformation is used to allow regression coefficients to be interpreted as percentage changes, which is the norm in economic growth literature (Acemoglu et al., 2001). The HDI is a composite index (ranging from 0 to 1) that combines life expectancy at birth (health dimension), education (measured by mean years of schooling for adults and expected years of schooling for children), and Gross National Income (GNI) per capita (PPP-adjusted). Higher HDI values, closer to 1, indicate better human development outcomes. The data is sourced from the United Nations Development Programme (UNDP, 2025).

The independent variables are colonizer identity and a rule of law (RoL) estimate, taken from the year 2000. Colonizer identity is a dummy variable indicating former colonies of Portugal (P) and France (F). British (B) colonies served as the baseline (excluded to avoid perfect multicollinearity in regression analysis). Comparing the coefficients for P and F against B helps isolate the effects of colonial legacies. The RoL estimate is a continuous measure (ranging from -2.5 to 2.5) taken from the World Bank's Worldwide Governance Indicators (WGI). It captures perceptions of confidence in and enforcement of societal rules (like for example contracts and property rights), the quality of judicial and law enforcement institutions, and the likelihood of crime or violence. Rule of law is used as a standard variable for institutions in similar studies. Higher values indicate stronger rule of law. This variable's data was retrieved from the year 2000 to assess its long-term institutional effects on the 2023 outcomes of interest (World Bank, 2025).

Table 1: Summary Statistics Table

Variable	Mean	SD	Min	Max	Mean (P) (N=5)	Mean (F) (N=16)	Mean (B) (N=14)
Log(GDPpc)	8.78	0.70	7.14	10.30	8.51	8.63	9.03
HDI	0.557	0.096	0.414	0.806	0.598	0.536	0.592
RoL	-0.52	0.72	-1.60	0.94	-0.74	-0.53	-0.38

Notes:

- Mean (P), Mean (F) and Mean (B) are the means of former Portuguese, French and British colonies for each variable.

This summary statistics table compares institutional performance and economic performance across the former colonies of France, Portugal and Britain. Former British colonies have the highest higher value for both log GDP per capita and rule of law. In the scope of this study, these results suggest that these former colonies are better off in economic and institutional settings, likely due to positive colonial legacies. Former French colonies score lowest on HDI, and Portuguese colonies score lowest on log GDP per capita, likely reflecting the extractive policies of colonial rule. Portuguese colonies show the lowest score for rule of law, while scoring the highest for HDI, suggesting that uneven legacies in development persist after independence.

VII. Results

This section presents the results of the regression analysis examining the relationship between colonizer identity and current development outcomes.

Table 2: Regression Results

DV	Log GDP (1)	Log GDP (2)	HDI (1)	HDI (2)
Constant	3.719 (0.090)***	3.829 (0.091)***	0.598 (0.026)***	0.629 (0.027)***
Colonizer P	-0.041 (0.176)	-0.025 (0.161)	-0.012 (0.051)	-0.007 (0.047)
Colonizer F	-0.072 (0.124)	-0.037 (0.114)	-0.055 (0.036)	-0.045 (0.033)
Rule of Law Estimate		0.221 (0.080)**		0.063 (0.023)*
Sample size (n)	35	35	35	35
R-squared	0.010	0.208	0.073	0.251
Adjusted R-squared	-0.051	0.131	0.014	0.179
F-statistic (p-value)	0.170 (0.8446)	2.706 (0.0623)	1.245 (0.3016)	3.465 (0.0280)

Notes:

- Standard errors are in parentheses.
- Significance levels: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.
- Colonizer P = Portugal, Colonizer F = France

7.1 Log GDP per Capita, Colonial Identity and Rule of Law

The first regression model estimates the effect of colonizer identity on economic development. The two independent variables in this model are colonizer dummies (P and F). The dependent variable is the natural logarithm of GDP per capita in 2023.

The coefficients for the French and Portuguese dummies are both negative (-0.072 and -0.041, respectively), suggesting that these former colonies exhibit marginally lower GDP per capita than British ones, *ceteris paribus*. However, the lack of statistical significance (p-values of 0.564 for French colonies and 0.815 for Portuguese colonies) indicates that there is no significant difference in economic development between French and British and Portuguese and British colonies. The model's weak explanatory power underscores the limited role of colonizer identity in predicting economic outcomes. With an R-squared value of 0.0105, the regression explains only 1.05% of the variation in log GDP per capita. The adjusted R-squared of -0.051 suggests that the inclusion of colonizer dummies does not improve predictive accuracy. The F-statistic's high p-value (0.8446) confirms that there is no significant collective effect of colonizer identity on GDP per capita.

The second (multiple) regression model (shown in Table 2, Column 2) was estimated including both the colonizer dummies and a rule of law variable. The inclusion of RoL captures the direct effect of institutions on economic development in the spirit of the work by Acemoglu et al (2001). This multiple regression analysis confirms that the identity of the former colonial power (whether British, French, or Portuguese) does not exert a statistically significant influence on contemporary GDP per capita in the sample of 35 African countries. By contrast, the rule of law variable measured in the year 2000, is a strong predictor of GDP per capita in 2023. The coefficient of 0.221 (significant at the 1% level) indicates that a one-unit improvement in the RoL index corresponds to a 22.1% increase in GDP per capita, holding colonial identity constant. This is over

a period of 23 years, between 2000-2023. This RoL index implies that countries with stronger institutional foundations (effective contract enforcement, property rights protections, and judicial impartiality) experience substantially higher economic performance over time. This result aligns with institutional theories of development (Acemoglu et al., 2001), which say that inclusive and well-functioning institutions (captured by higher values of RoL) are of primary importance for sustained growth. The persistence of this effect over a 23-year period highlights the enduring importance of institutional quality in shaping economic outcomes, even when accounting for colonial identity. Despite these insights, the model's explanatory power remains limited. The adjusted R-squared value is 0.131, suggesting that only 13.1% of the variation in log GDP per capita is explained by colonial identity and rule of law. The marginal significance of the F-statistic ($p=0.062$) indicates that while these variables collectively contribute to understanding economic performance, other omitted factors like post-colonial governance structures may also play an important role.

7.2 Human Development Index, Coloniser Identity and Rule of Law

To further explore the consequences of colonial rule on present-day development, this analysis looks at the relationship between a country's Human Development Index (HDI) and the identity of its former colonizer. As this paper recognizes that post-colonial institutions may also directly affect HDI, another regression (shown in table 2, column 3) includes Rule of Law as an additional variable. The two models below test whether colonizer identity and institutional quality predict contemporary HDI outcomes.

The first regression model aims at knowing whether there are significant differences in Sub-Saharan African countries' HDI depending on the identity of their former colonizer. The model indicates that compared to British colonies, countries formerly colonized by France have a slightly lower HDI average (by 0.055 points), but this difference is not statistically significant ($p=0.134$).

The coefficient for Portuguese colonies is even smaller (0.012 point difference) and is also statistically insignificant ($p = 0.811$). These results suggest that (in isolation) colonizer identity does not have a meaningful association with current HDI levels.

The model's explanatory power is limited (R-squared value=0.073; adjusted R-squared= 0.014). This means that colonizer identity accounts for less than 8% of the variation in HDI across the sample.

The second regression model draws the same conclusion as the previous one, regarding the statistical insignificance of colonizer identity on HDI. However, the rule of law variable has a statistically significant positive relationship with HDI, with a coefficient of 0.063 and a p-value of 0.0106. This means that countries with stronger legal and governance systems tend to have higher HDI scores, *ceteris paribus*. These findings imply that the impact of colonization on development outcomes today may be more linked to the institutional legacies colonizers left behind rather than their sole identity. This model also implies that improving the rule of law could be an effective strategy for enhancing HDI in former colonies. Regarding its fit (R-Squared= 0.2511; Adjusted R-squared= 0.1786), the model indicates that about 18% (if one looks at adjusted R²) or 25% (if one looks at R²) of the variation in HDI across former SSA colonies is explained by colonizer identity and rule of law. The model as a whole is statistically significant (F-statistic= 3.465; p-value= 0.02795). It is also relevant because it establishes that the rule of law is a significant and positive predictor of HDI, whereas colonial identity alone is not.

VIII. Limitations

While this study offers insights into the relationship between colonial identity and present-day development outcomes in Sub-Saharan Africa, it is subject to several limitations that must be taken into consideration. Despite historical and theoretical arguments explaining the colonial legacies of the Portuguese, French and British, the regressions did not show significant differences depending on who the colonizer was. This study only measures development in the year 2023.

The study is limited by the small sample size analyzed ($n=35$). This is a limitation to the research's statistical power and the reliability of inferences. Consequently, the generalizability of the findings for this paper is also compromised. Additionally, the distribution of colonies among European powers is unequal. Portugal had only 5 colonies in Sub-Saharan Africa, contrasted to 14 British colonies and 16 French ones. The unequal split also reduces the robustness of comparisons and explanatory power.

Taking into account the small sample, the model adopts a parsimonious approach. However, this choice creates a limitation relating to the exclusion of control variables that would allow for a better understanding of the relationship between the independent and dependent variables. This also increases the risk of an omitted variable bias. Moreover, the problem also faces endogeneity due to a possible reverse causality. This is because the variable "Rule of Law" has a significant positive correlation with development indicators, but might also be influenced by development itself.

IX. Discussion and Conclusions

9.1 Limited Role of Colonial Identity and The Central Role of Institutions

Across all the regressions, the identity of the former colonizer (British, French, or Portuguese) was not statistically significantly correlated with Log GDP per capita or HDI. The coefficients on French and Portuguese former colonies were slightly negative, suggesting development outcomes that are slightly worse than British ones. But these results were not statistically significant, meaning that the identity of the colonial power, in itself, is not a strong predictor of contemporary performance.

The reasons (limitations) why these findings might hold, were previously discussed, but these findings also resonate with arguments by Acemoglu, Johnson, and Robinson (2001), who argue that colonial identity itself is not an important predictor of development once institutions are accounted for. Their paper emphasizes institutional persistence and post-colonial path dependency over the origin of colonial regimes. Additionally, Maseland (2017) argues that colonial identity did initially affect post-independence institutional quality and development, however, this impact faded over time and is now insignificant. The paper holds that African nations are not permanently constrained by colonial history, and that colonial legacies were only transitory (Maseland, 2017). The research conducted in this paper found that rule of law matters more when explaining development outcomes compared to colonial identity. Acemoglu et al., (2001) supports this conclusion by arguing that institutional quality should be taken into account before any other factor when determining development. The statistical significance of rule of law in explaining both log GDP per capita and HDI shows that an increase in rule of law corresponds to increases in both metrics. These results are consistent with the development economic institutional hypothesis, which holds that long-term development is ultimately determined by inclusive, transparent, and enforceable legal and political structures (Acemoglu 2001; Barro 1992).

9.2 Structural and Long-Lasting Legacies of Colonialism

While this study does not find statistically significant effects of colonial identity on GDP per capita or HDI today, it should be stated that the effects of colonialism cannot be boiled down to regression analysis.

The colonial powers drew the borders of African countries dividing ethnic groups with a shared language, heritage, and homeland, and forcibly uniting competitive groups within artificial boundaries. They aimed to create conflict to weaken groups and reduce resistance. The legacy of those imposed boundaries is seen to this day in inter-communal conflict, civil wars, and fragile national identities (Michalopoulos and Papaioannou, 2016). And colonialism did not end with independence. Its institutions persist in debt, in unequal trade agreements, in foreign banks and corporations that dictate local economies. This context of influence over the sovereignty and development path of African countries is neocolonialism (John, Messina & Chukwuemeka, 2023). These ongoing and deeper effects are not captured by the “colonial identity” variable in regression models. Leaving them out does not mean they are unimportant. Rather, it reflects the boundaries of empirical research for investigating more deeply rooted, structural patterns of inequality and domination. Even as there is no significant quantitative proof of a relationship between colonial identity and development in this analysis, this should not be taken as a denial of colonialism's enduring impact.

9.3 Further research

Future research needs to incorporate additional variables to determine the mechanisms through which colonial legacies can persist. The addition of controls for institutional quality, such as the rule of law index, for example, would enable an unpacking of whether colonizer identity

indirectly affects through governance institutions. Robustness tests such as the exclusion of outliers or the use of alternative model specifications would make the findings more valid. Mixed-methods approaches such as case studies or historical institutional analyses would also allow for a more detailed understanding of the processes that shape development trajectories in formerly colonized countries. While this preliminary analysis does not support a deterministic link between colonizer identity and GDP per capita, it implies that more sophisticated models are needed to examine the complex pathways affecting post-colonial development.

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