

# African History through the lens of Economics

## Questions and Answers - Week 7

**Tuesday March 15, Main Lecture 7:** Colonization II. Infrastructure and Extraction *with Elias*

*Papaioannou*

**Wednesday March 16, Special Lecture 9:** Colonial Infrastructure and Repression *with Roland*

*Pongou and Belinda Archibong*

Please visit our course [website](#) to access the recorded lectures and slides of each session. Due to the high volume of questions received during the live Q&A, we have prepared this document, which addresses a selection of questions that were not possible to answer during the lecture.

### Tuesday 15 March; lecture by Elias Papaioannou

#### **Q1. Did railways help inclusive development of Africa, or did they only facilitate transportation of raw materials to meet the industrial demands of colonial Europe?**

As discussed by both Elias and Roland, a main factor in deciding where to build a railway was the location of mining areas or cash crop plantations, and not whether the increased connectivity would benefit Africans. However, in Ghana, where British colonists built railways to connect the coast to mining areas, Jedwab and Moradi (2016) find that thinly populated regions surrounding the built railroads benefited. This was due to the lower trading costs that stemmed from the increased connectivity, which in turn encouraged cocoa planting. Many Ghanaians specialised in the crop's cultivation because it was profitable. Similarly, evidence from South Africa (Herranz-Loncán & Fourrie, 2018) suggests that the presence of a railway had a sizable positive effect on income per capita in Cape Colony. This evidence points to positive economic spillovers. This is not to say that the benefits were evenly distributed among colonists and Africans. Moreover, there were side-effects, such as increased incarceration rates due to the need for labour to construct infrastructure (discussed by Belinda Archibong).

Other reasons for railway construction were geopolitical. These reasons did not have the interest of Africans at heart, but rather were motivated by claims to power among competing European colonists. This was the case in Kenya, where the Uganda railway was intended to unify British colonies in northern, eastern and southern Africa (Jedwab, Kerby & Moradi, 2017). A consequence of the railway's construction was an increase in European settlements and an influx of Asian traders into these cities. At the time, Africans might have partly benefited from the emergence of new population hubs. Inclusivity nonetheless remained limited; for example, expenditure on European and Asian students was 21 and six times higher respectively than expenditure on African students.

More evidence on the impact of railway construction is available for Nigeria (Okoye, Pongou & Yokossi, 2019) and colonial British West Africa (Chaves, Engerman & Robinson, 2014).

#### **Q2. How did colonial investments impact long-run development in Sub-Saharan Africa?**

Many of the papers listed above do not only look at the impact at the time, but have a focus on long-run consequences. Railways often had a transformative impact that persists to the present day. They relocated economic activity and gave rise to a new spatial equilibrium, where more people lived in urban areas. The areas which were connected during the colonial period are more prosperous today. In the

study on Kenya mentioned above, the authors find that the comparatively higher development of these regions is due in part to path dependence; that is, colonists built infrastructure such as hospitals. The authors also assert that these urbanised areas served to coordinate in which places investments were made after independence. In the case of Ethiopia, Bertazzini (2022) finds that territory within 10km of roads that were paved during Italian occupation from 1936-1941 is significantly more populated, urbanised and luminous in 2010 compared to regions that are farther away.

However, as Roland pointed out in his lecture on Wednesday, while the average development impact might be positive, there is heterogeneity in how these benefits are distributed in both the short and long run for a particular country. In Nigeria, the north benefited from the introduction of the railway, whereas the south did not. This difference stems from the fact that the south had access to ports and was thus able to export commodities more cheaply even before the introduction of the railway.

One thing is important to stress here: There is no counterfactual of what would have happened in the absence of colonialism. All we can say is that, where colonialism took place, regions in which there was higher investment by the colonists are now relatively more prosperous.

### **Q3. What explains the modern-day economic success of Botswana compared to other colonised countries?**

Somewhat contrasting the case studies above is the example of Botswana, which has had one of the highest global growth rates of per-capita income in the last 50 years, despite little investment during the colonial period. Acemoglu, Johnson and Robinson (2002) have undertaken a detailed case study of this success story. In line with their argument of institutional relevance which we discussed in week 6, the authors assert that the main reason for the economic success of Botswana is good institutions. They assert that inclusive pre-colonial institutions (as discussed in week 2 of this course); little influence of British colonists; motivation by the elite to maintain and strengthen institutions of private property after independence; the high rents stemming from the diamond industry; and policies enacted by Presidents Khama and Masire are reasons for the high quality of institutions. Other case studies that look at the factors that contributed to the economic success of Botswana are Hjort (2010) and Hillbom (2013).

The reasons why inclusive institutions did not emerge in many other African countries were discussed more extensively last week. We refer you to the Q&A and the lecture slides from week 6. Two cases which Elias contrasted to Botswana in his lecture this week are Sierra Leone and the Democratic Republic of the Congo (DRC). They are among the poorest countries in Africa and the world. In Sierra Leone, colonists empowered paramount chiefs, who needed to come from a family recognised by the British, as the sole authority of local government. Acemoglu, Reed and Robinson (2014) assert that this system led to underdevelopment due to a lack of political competition. Another study by Acemoglu, Chaves, Osafo-Kwaako and Robinson (2014) looks at Sierra Leone from a comparative perspective. The example of the DRC also highlights the long-term consequences that brutal colonial concessions had on development. Lowes and Montero (2021) look at the boundary of a rubber concession in Congo Free State and find that individuals inside the boundary suffer from worse educational, wealth and health outcomes today compared to individuals living outside the concession.

### **Q4. How does the degree of extraction and violence compare between different colonies and different colonial powers?**

There were not only differences between institutions of extraction and violence among colonial powers; even the same colonial power had different ways of operating in different colonies. To understand what this means, it is illuminating to look at different colonies and the practices in place there.

The DRC was arguably the most brutal example of colonial extraction and violence. Between 1880 and 1920 approximately 10 million people died in the colony, which was the 'private property' of King Leopold II for most of that time. For further readings on this topic, we recommend *King Leopold's Ghost: A Story*

*of Greed, Terror and Heroism in Colonial Africa* by Adam Hochschild and *Heart of Darkness* by Joseph Conrad.

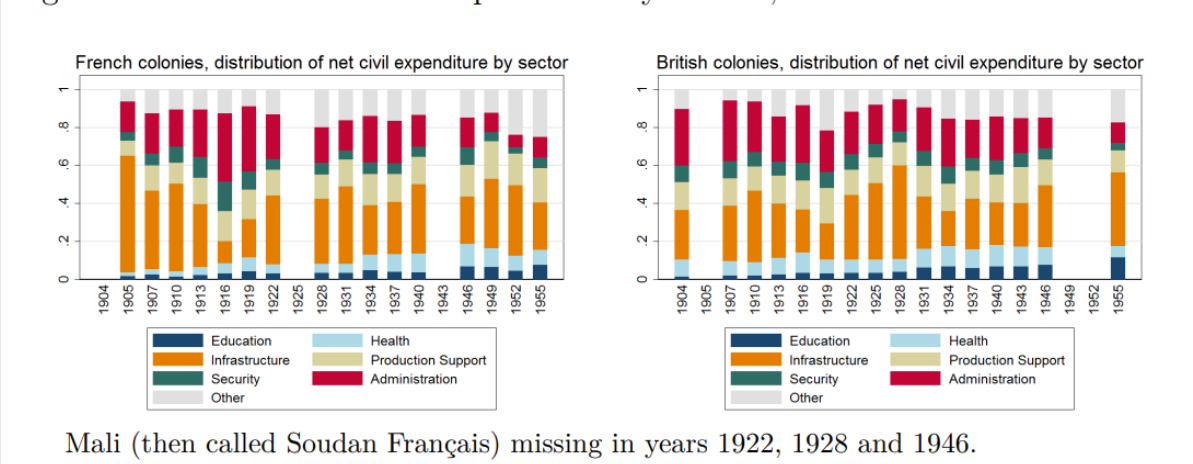
Another infamous case of violence is the construction of the Congo-Ocean railway, which was built by France between 1922 and 1934. This is because of the high mortality rates and the rough working conditions. The railway was constructed partly by relying on the *corvée* system of compulsory labour. Marlous Van Waijenburg (2018) studies this system in French West Africa. He finds that so-called “labour taxes”, which required adult male Africans to work a certain number of days in the year without compensation, constituted a significant part of the colonial budget.

Belinda Archibong discussed the case of Nigeria at length in her lecture last Wednesday. Together with Nonso Obikili (2020), she looks at the extent to which the UK relied on prison labour in Nigeria. Like Van Waijenburg, they find that prison labour played a substantial part in the construction of infrastructure and public works. Moreover, positive economic shocks increase incarceration rates, and areas which were subject to high rates of imprisonment have lower trust in judicial institutions and the police today.

**Q5. Did different colonisers have different strategies in the construction of infrastructure?**

Railroads constituted a big share of the colonial budget. They were typically built to facilitate exports of valuable crops and mining goods by connecting the coast to the interior and to ensure military domination. Looking at public finances of colonies in West Africa, Cogneau, Dupraz and Mesplé-Somps (2018) find that the overall composition of expenditure was similar in French and British colonies. Around half of the budget was dedicated to infrastructure and production support. We repeat figure 6 from their paper here (all colonies of French West Africa are included; Gambia, Sierra Leone, Ghana and Nigeria are the British colonies included):

Figure 6: Distribution of net expenditure by sectors, French and British colonies



One distinction between British and French colonial rule that is cited frequently is the use of forced labour, which was more pronounced in French and Portuguese colonies. France relied on forced labour as part of the *corvée* system well into the 20th century. The British also used forced labour; however, it was officially abandoned in 1930 when the International Labour Office Forced Labour Convention was ratified (Cooper & Frederick, 1996).

**Q6. Why were planned railroads not ultimately built? Of what use are 'placebo' railway lines?**

As Roland discussed in his lecture, there were three main reasons why the construction of planned railroads did not go ahead. These are idiosyncratic factors, such as disagreement between experts or the First World War, budgetary constraints and terrain conditions. Jedwab and Moradi (2016) discussed these idiosyncratic factors in the case of Ghana at length.

Placebo railway lines are useful in establishing causality when investigating the impact that railways had. Clearly, the decision to build a railway along a certain path is not random. It could be the case that railways were placed in areas that would have had higher levels of subsequent production, population, or wealth anyway, or that differ in some other important aspects from the rest of the country. In these instances, it might not be the railway itself, but the aforementioned factors that cause higher subsequent production, wealth or population in a region. However, if some lines were planned but not built for some random reason, ex ante we would expect areas around built vs. placebo railways to be similar. If we then compare the areas around built vs. placebo railways with each other, we have more certainty with regard to our conclusions about the impact of the railway.

### **Q7. Why was colonial infrastructure not maintained and developed after independence?**

In their VoxEU column *How colonial railroads defined Africa's economic geography*, [Jedwab, Kerby and Moradi](#) cite mismanagement, lack of maintenance and the adoption of motor roads as the reasons why the railway system collapsed after independence. In a comprehensive assessment of rail transport in Sub-Saharan Africa, [Olievschi \(2013\)](#) highlights several challenges that railways faced starting in 1950. In particular, he asserts that investments were primarily focused on road infrastructure and that railways were neglected as a result. Moreover, the independence of countries led to higher administrative barriers when cooperating on international railway transport. This increased the cost of operating railways.

### **Q8. What were the key motives for incarcerating people during the colonial period?**

Assessing the motives behind incarceration in colonial Africa is part of the study that Belinda Archibong presented ([Archibong & Obikili, 2020](#)). She discusses the incentives that colonial authorities faced when prison labour is viewed as a source of free labour. On the surface, imprisonment in the colonies was used to maintain law and order. However, looking more closely, it appears that other rationales played a key role. In the case of Nigeria analysed by Archibong and Obikili, the authors find that positive economic shocks lead to an increase in short-term incarceration rates. This is in line with their hypothesis that prison labour was used to serve economic interests, as it is easier to reap the benefits of increased crop productivity or of higher crop prices when there are well-developed modes of transport that facilitate exports. Evidence on the post-independence period suggests that the impact of positive economic shocks was reversed. This is plausible, because better economic conditions should increase the opportunity cost of crime, and further highlights that the motivation for imprisoning people during the colonial period was at least partly economic in nature.

In a detailed analysis of British colonies in Africa, [Hynd \(2015\)](#) draws on official records and prison and labour reports. She argues that prison labour was used as a hidden form of forced labour, with the latter being officially abolished by Britain in 1921. For Francophone Africa, [Bernault \(2003\)](#) maintains that prison labour was a crucial part of colonial practices and that prisoners were in part assigned to work for private companies. These two accounts further emphasise that one of the motives behind imprisoning individuals in colonies was to use them as a source of free labour.

### **Q9. Did the colonial practice of incarceration as a means of obtaining free labour contribute to Nigeria's current challenge of a weak justice system and the culture of brutality by state law-enforcement agents?**

[Obikili and Archibong](#) find that areas which had higher rates of long-term incarceration during the colonial period experience lower levels of trust in legal institutions, the police and systems of tax administration today. This suggests that colonial practices had a lasting impact on how the population views authority. Empirical evidence regarding the long-run effect on the institutions themselves is scarce.

## References

- Acemoglu, D., Chaves, I. N., Osafo-Kwaako, P., & Robinson, J. A. (2014). Indirect rule and state weakness in Africa: Sierra Leone in comparative perspective. In *African Successes, Volume IV: Sustainable Growth* (pp. 343-370). University of Chicago Press.
- Acemoglu, D., Johnson, S., & Robinson, J. A. (2002). An African success story: Botswana. *Available at SSRN 304100*.
- Acemoglu, D., Reed, T., & Robinson, J. A. (2014). Chiefs: Economic Development and Elite Control of Civil Society in Sierra Leone. *Journal of Political Economy*, 122(2), 319–368.
- Archibong, B., & Obikili, N. (2020). Prison labor: The Price of Prisons and the Lasting Effects of Incarceration. *African Economic History Working Paper Series*, (52).
- Bernault, F. (2003). *A history of prison and confinement in Africa*. Heinemann.
- Bertazzini, M. C. (2022). The long-term impact of Italian colonial roads in the Horn of Africa, 1935–2015. *Journal of Economic Geography*, 22(1), 181-214.
- Chaves, I., Engerman, S. L., & Robinson, J. A. (2014). Reinventing the wheel: the economic benefits of wheeled transportation in early colonial British West Africa. *Africa's Development in Historical Perspective*, 321-265.
- Cogneau, D., Dupraz, Y., & Mesplé-Soms, S. (2018). African states and development in historical perspective: Colonial public finances in British and French West.
- Cooper, F., & Frederick, C. (1996). *Decolonization and African society: The Labor Question in French and British Africa* (No. 89). Cambridge University Press.
- Herranz-Loncán, A., & Fourie, J. (2018). “For the public benefit”? Railways in the British Cape Colony. *European Review of Economic History*, 22(1), 73-100.
- Hillbom, E. (2013). Cattle, diamonds and institutions: Main drivers of Botswana’s economic development, 1850 to present. *Journal of International Development*, 26(2), 155-176.
- Hjort, J. (2010). Pre-colonial culture, post-colonial economic success? The Tswana and the African economic miracle. *The Economic history review*, 63(3), 688-709.
- Hynd, S. (2015). “... a Weapon of Immense Value”? Convict labour in British Colonial Africa, c. 1850–1950s. In *Global Convict Labour* (pp. 249-272). Brill.
- Jedwab, R., Kerby, E., & Moradi, A. (2017). History, Path Dependence and Development: Evidence from Colonial Railways, Settlers and Cities in Kenya. *The Economic Journal*, 127(603).
- Jedwab, R., & Moradi, A. (2016). The Permanent Effects of Transportation Revolutions in Poor Countries: Evidence from Africa. *The Review of Economics and Statistics*, 98(2), 268–284.
- 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.
- Okoye, D., Pongou, R., & Yokossi, T. (2019). New technology, better economy? The heterogeneous impact of colonial railroads in Nigeria. *Journal of Development Economics*, 140, 320-354.
- Olievski, Vasile Nicolae. 2013. Rail Transport : Framework for Improving Railway Sector Performance in Sub-Saharan Africa. *Sub-Saharan Africa Transport Policy Program (SSATP) working paper;no. 94*. World Bank, Washington, DC.
- Van Waijenburg, M. (2018). Financing the African colonial state: The revenue imperative and forced labor. *The Journal of Economic History*, 78(1), 40-80.