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Living Standards and Wellbeing in Africa, an Economic History Perspective

Inaugural lecture

4 November 2022

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Leden van het College van Bestuur,
zeer geachte aanwezigen,

I will deliver this inaugural lecture in English to also include the guests from abroad.

Why are we in the Netherlands today, so much richer than our grand and great-grand parents, living only 50, 100, 200 years ago? Or why have people in the Netherlands, or in Germany, or Sweden, higher incomes than people in for example Vietnam, Senegal or Guatemala? Questions like these lie at the heart of Economic History. By uncovering how in the past events unfolded, how societies evolved, how economies developed, economic history allows us to explore fundamental forces that gave rise to empires, and destroyed nations; institutions that gave rise to trade; and ultimately uncover underlying sources of human prosperity.

One of the important contributions that economic history makes to broad science, is an empirical contribution. By uncovering and presenting new facts of historical developments, it provides a first and crucial step, towards understanding, explaining and interpreting phenomena. What are drivers, underlying mechanisms and effects of for example global inequality, poverty and migration flows. This empirical contribution is also a first step towards theorizing: was this a unique case, or are there more general lessons to be learned. Can we use it to predict, and/or understand developments in other cases, in other contexts?

I will start this lecture with a global perspective on long run economic development, and show how spectacular global economic development over the past 200 years has been. Measuring long run global economic development is the central focus of the Maddison Project, in which I work closely with Jan Luiten van Zanden, and which is one of the pillars of the Groningen Growth and Development Centre (GGDC), hosted at the Faculty of Economics and Business at this university. This research builds on a long tradition, started by Angus Maddison, a prominent professor in Groningen, and relies on the collaboration of a large group of international scholars, some of whom are in the audience today. This work has provided important contributions to central debates in Economic History, such as the 'Great Divergence' debate, which discusses when and why Western countries forged ahead and became so much richer than much of the rest of the world (Allen et al., 2011; Broadberry et al., 2015; Broadberry & Gupta, 2006; J. Z. Lee & Feng, 2001; Li, 1998; Li & van Zanden, 2012; Parthasarathi, 1998; Pomeranz, 2001; Studer, 2008).

The second part of my lecture will focus more specifically on Sub-Saharan Africa (henceforth Africa). Even though most African countries are currently featuring in the lower half of the global income distribution, this is certainly not a stagnant continent. Since the year 2000, average incomes have increased with nearly 40 percent (Bolt & Van Zanden, 2020; The Conference Board, 2022). Additionally, Africa has a young and rapidly growing population, predicted to make this continent the demographic giant of the 21st century (World Health Organization, 2014, p. 7). Thus, understanding long run development for this continent, matters for our understanding of *global* long run development.

In this part of my lecture, I will discuss both what recent economic history research has taught us about historical living standards and wellbeing in Africa, but also consider important research still to be done, focusing on income inequality and health specifically. Over the past 10 to 15 years, new economic history research, based on previously unexplored archival material has not only rewritten African history but it has also pushed Africa's long run experience into big global debates on development, inequality, and institutional development (Fourie, 2016; Hopkins, 2009). This research is interdisciplinary by nature, and strongly evidence based, using concepts, theories, and skills from a broad range of social science. While this research has provided new impetus into theories of global development, many issues are yet to be explored.

An Economic History of the World: long term trends in incomes

Before we can begin to understand why we are so much richer than our ancestors, it is useful to first look at how much richer the world is today compared to 200 years ago. Since 1820, the world's average income per person has increased nearly 13 times (Bolt & Van Zanden, 2020; OECD, 2021). And we can see that economic growth accelerated over time (see figure 1). During the 19th century, it took nearly 100 years for the average global income to double, to a little more than 2000 dollars in 1900 (in 2011 $). During the first half of the 20th century, it took only 60 years to double again to 4,500 dollars (1900-1960). And then a second doubling happened before the end of the 20th century (1960-1995). Since then, global economic development has slowed down only marginally: the average global income has increased 1.5 times over the past 20 years to over 14,000 dollar per person per year (Bolt & Van Zanden, 2021).

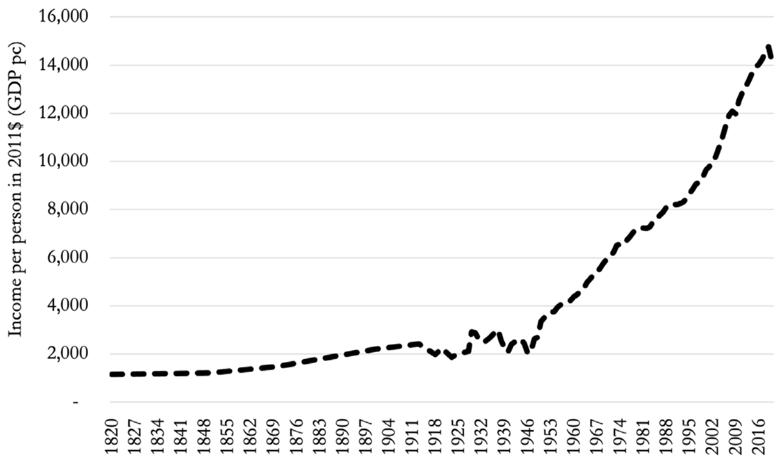

Figure 1: World average income per person
Source: The Maddison Project Database (Bolt & Van Zanden, 2020). Note: incomes expressed in 2011$.

While this is impressive economic progress, looking around the globe today makes clear that this average development has not brought everyone the same progress (see figure 2). The fact that incomes across the world diverged since the 19th century is well known as one of the 'basic facts of modern economic history' as coined by Pritchett in his seminal article 'Divergence, Big Time' (Pritchett, 1997). When Pritchett wrote this article 25 years ago, the main issue according to him that limited all discussions of global economic development, has always been the lack of historical data of the less developed economies, making global comparisons very difficult.

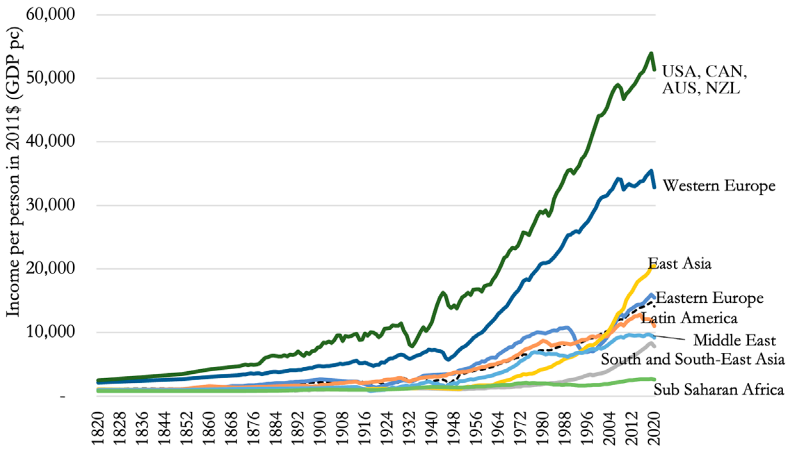

Figure 2: Average incomes per world region
Source: The Maddison Project Database (Bolt & Van Zanden, 2020). Note: incomes expressed in 2011$.

Since the publication of that article, the field of historical national accounting has made enormous progress in estimating income levels further back in time, for an increasing number of countries, including countries beyond the West (Bolt & van Zanden, 2014; Bolt & Van Zanden, 2020). By putting all this new data together in a comparable format which allows for a comparison over time and across countries, we can now draw an updated picture on long run global economic development.

The pattern of 'divergence big time' which Pritchett described 25 years ago, is still very clear. The poorest countries have not caught up with the richer: in 1820, the average income in the richest country in the world was five times higher than in the poorest country. Today, the income in the richest country is about 135 times higher than the average income in the poorest country (Bolt & Van Zanden, 2020).

So if obtaining more and better data over the past 25 years has not changed the overall picture of long run global development, how much do we actually gain from improving our measures of historical income estimates, beyond being able to add more detail, more nuance to picture?

In this respect, it is important to realize that economic growth, especially beyond a core group of what Angus Maddison defined as the 'advanced capitalist' countries' (Maddison, 1995), has shown enormous variation and volatility both between countries but also over time. To make progress in our understanding why some countries experience long periods of sustained growth, or in contrast, experience very slow economic growth or severe economic declines, we first need to know the facts of growth (Jones, 2016). The importance of measurement before theory is not new, given that all modern theories of economic growth, from Solow (1956) to Lucas (1988), to Romer (1990), to Aghion and Howitt (1992), were designed with the empirical fact of steady sustained growth of the frontier economy since 1820 in mind (Jones, 2016: 3). Yet, theorizing about economic growth needs to tackle much more than only frontier growth, and state-of the art empirical evidence of the wide variety of growth experiences is a crucial first step.

Long term inequality trends in Africa

For the remainder of the lecture, I zoom into Sub-Saharan Africa.

Despite featuring in the lower half of the global income distribution today, African countries have experienced substantial periods of economic growth over the past century. Yet, this has not been constant, or sustained economic growth (Broadberry & Gardner, 2022; Hillbom & Green, 2019; Jerven, 2010). The pattern of economic booms and busts becomes very clear if we look at the period since 1950. In the wake of the golden age of global economic expansion following WW2, demand for African commodities was strong and African countries experienced an economic boom. Up until 1980, incomes in many African countries especially in West Africa were on par or higher than most countries in South and South-East Asia, prominently India and China.

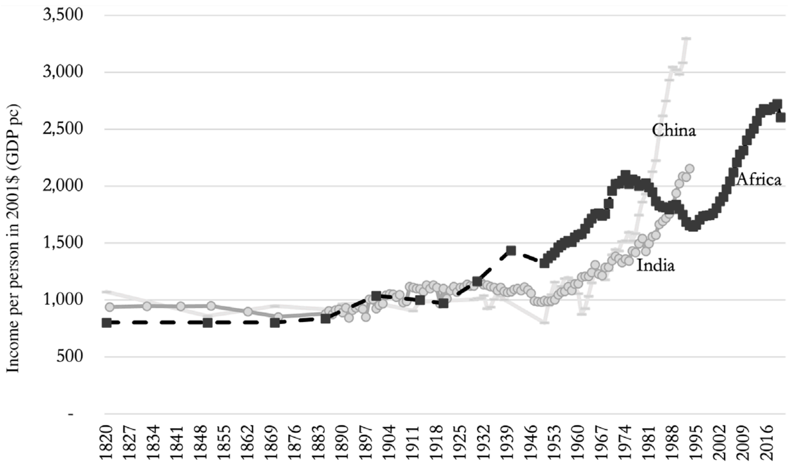

Figure 3: Average income per person in Africa, China and India
Source: The Maddison Project Database (Bolt & Van Zanden, 2020); Broadberry and Gardner (2022) and The Conference Board Total Economy Database, April 2022). Note: incomes expressed in 2011$.

However, this period of economic expansion was however followed by a sharp decline in incomes during the 1980s and 1990s. These decades are known as the lost decades, during which much of the progress that was made since independence was lost. Since 2000 however, economies in Africa have been rapidly expanding again, with average incomes increasing nearly 40 percent in 20 years. The momentum of growth however seems to be slowing after 2015 (Bolt & Van Zanden, 2020; The Conference Board, 2022). One of the major issues in African Economic History, therefore, concerns not why Africa does not grow, but how to explain Africa's apparent failure to sustain growth and development (Fourie, 2016). By looking into trajectories over time, we can gain a better understanding about mechanisms both of persistence and of change. One of the examples of how this approach has been very fruitful, is the study of long-term inequality trends in Africa.

The continent today is known to have some of the highest income inequality in the world. Half of the top 20 most unequal countries in the world are in Africa. At the same time, there are large regional differences. While most countries in Eastern and Western Africa are characterized my low to moderate income inequality (expressed by the Gini coefficient), incomes in Southern Africa are very unequally distributed. South Africa currently is the most unequal country in the world (UNDP, 2017; World Bank, 2022). What explains this diversity?

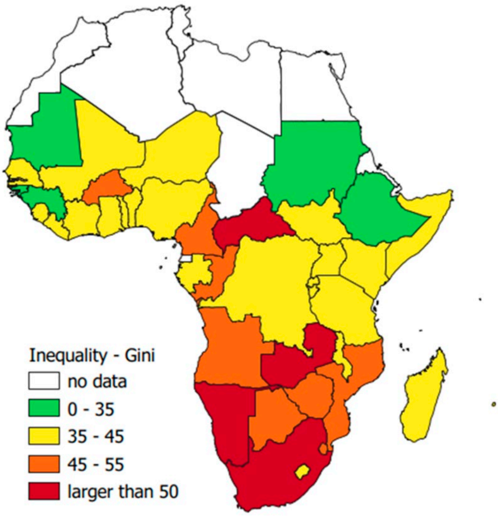

Figure 4: Inequality (Gini coefficient) in Sub Saharan Africa
Source: Author's creation based on the World Development Indicators, World Bank (2022). Note: for all countries the most recent Gini coefficient available was used for the map.

To understand current inequality levels, long term dynamics have become central to scholarly analysis (Alfani & Ammannati, 2017, p. 1072). However, early inequality estimates are currently scarce especially for Africa (Milanovic et al., 2011). And this is problematic, as theorizing on inequality is generally inductive, a lack of data means also a lack of theory or a view about the evolution of inequality. As a result, none of the existing theories on long term inequality, from Kuznets to Piketty are based on evidence from Africa (Kuznets, 1955; Piketty, 2017; Scheidel, 2017). Together with Ellen Hillbom from Lund University, Michiel de Haas from Wageningen University and various other scholars within our

African Long-term Inequality Trends (AFLIT) project[1], we are working on measuring historical inequality for African countries under colonial rule, to better understand the underlying determinants of long run inequality dynamics (Aboagye & Bolt, 2021; Bolt & Hillbom, 2016; De Haas, 2022; Hillbom & Bolt & De Haas & Tadei, 2021; Hillbom & Bolt, 2018; Tadei & Alfani, 2019).

Under colonial rule, most African economies were characterised by low levels of industrialisation and urbanization. They were generally land-abundant and came to specialize in the export of tropical commodities. This was a key driver of economic expansion, monetization and commercialization and commercialization in these economies (Broadberry & Gardner, 2022; Frankema & van Waijenburg, 2012; 2018). Export production provided direct income for African farmers and migrant workers, European settlers, and plantation owners. Indirectly, also trade, construction, and service sectors depended heavily on the export economy. Export production also enabled colonial revenue generation through taxation primarily, and thus financed the wages of public sector employees, both expatriate and African. While rising exports and expanding economies provided increasing income opportunities, these opportunities were not accessible to everyone. And this, unsurprisingly affected how the gains from trade and expansion were distributed (Hillbom, Bolt, De Haas en Tadei, 20211).

1 https://www.aflit.net/.

During the period of export led economic expansion under colonial rule we find increasing income inequality in nearly all of the cases that we have studied, although at different rates. This goes against the Solper Samuelson theorem derived from the standard H-O trade model. This predicts that as countries open up to trade, inequality should fall as the producers using the abundant factor of production gain, at the expense of the scarce factor of production (Stolper & Samuelson, 1941). Our research shows that different underlying dynamics were at play.

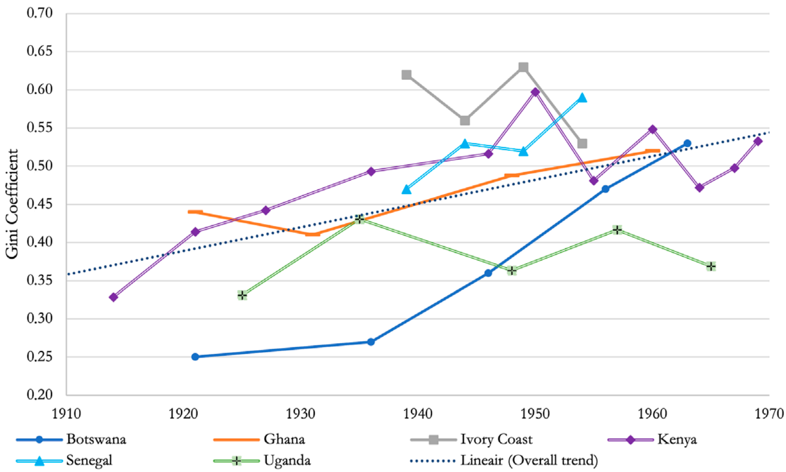

Figure 5: Inequality (Gini coefficient) for six colonies over time
Sources: based on Hillbom, Bolt, De Haas and Tadei (2021) using data from Aboagye and Bolt (2021); Bigsten (1987); Bolt and Hillbom (2016); Alfani and Tadei (2019 and revisions); De Haas (2021).

First, the process of export-oriented commercialization in Africa took place within a colonial context. The colonial institutional setting is therefore important to understand how incomes at the time were distributed. First of all, colonial administrations were set up, employing Europeans who received incomes often far above the average incomes. Further, in colonies which attracted larger numbers of European settlers, colonial administrations often facilitated land alienation in order for settlers to establish their farms. Additionally, these settler farmers often obtained higher prices for their produce (Suret-Canale, 1971; Tadei, 2022). This increased the scope for large settler farmers to participate in, and benefit from, the export expansion. At the same time, these developments reduced the scope for indigenous farmers to participate directly in, and benefit from, the expanding economic opportunities.

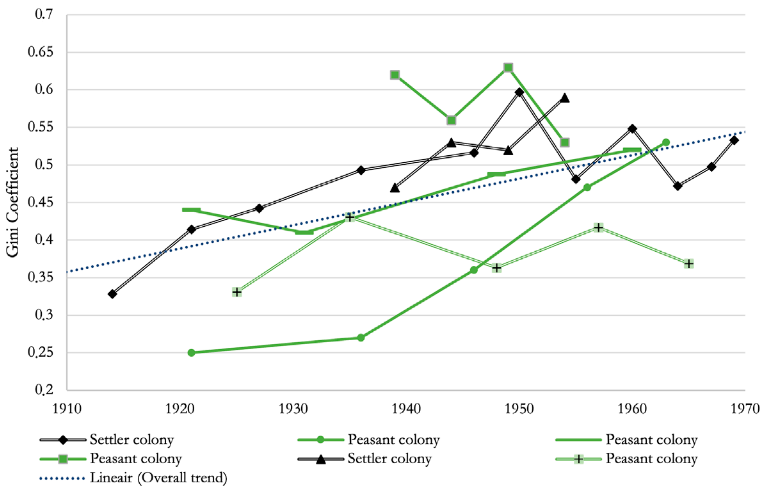

Figure 6: Inequality (Gini coefficient) for settler and peasant colonies
Sources: based on Hillbom, Bolt, De Haas and Tadei (2021) using data from Aboagye and Bolt (2021); Bigsten (1987); Bolt and Hillbom (2016); Alfani and Tadei (2019 and revisions); De Haas (2021).

In colonies with a larger share of settlers to the population, represented by the black lines in graph, settlers had more control over productive resources, larger income gaps appear between the settler and the African populations. This is perhaps not very surprising in a colonial context, and similar dynamics have also been found for Latin America for example (Engerman et al., 2002; Sokoloff & Engerman, 2000).

However, in most colonies in Africa, indigenous farmers initiated and shouldered most of the production of export commodities. In Ghana for example, after the introduction of cocoa at the end of the 19th century, exports expanded rapidly through African initiative, making the colony the world's largest cocoa exporter at the beginning of the 20th century (Aboagye & Bolt, 2021; Austin, 2014, p. 1035). How, and to what extent, this peasant farmer led export-oriented commercialization affected income inequality has not yet been fully explored. Our research shows substantial variation in inequality trends between peasant colonies, represented by the green lines in figure 6. We argue that an important mediating factor linking export production to inequality, especially in peasant colonies, was the factor content, or resource requirement and scope for capital accumulation, of the specific commodity that was produced. Even if most of the exports were agricultural commodities.

On the one hand, there were labour intensive commodities, such as annual field crops like groundnuts or cotton. Such crops involved little or no upfront capital investment, and the returns to labour were comparatively low, generating comparatively limited scope for rising inequality.

Figure 7: Labour intenstive commodities groundnuts (left) and cotton (right)
Source: La bibliothèque numérique du Cirad en agronomie tropicale (groundnuts) and Commons Wikimedia (cotton).

On the other hand, tree crops such as cocoa or coffee, or especially cattle, did require a substantial upfront investment. Either in terms of labour years to clear and maintain the land while trees did not bear fruit yet. Or in terms of capital to accumulate cattle, widely considered a prime form of wealth in African societies. As most of the population did not have the resources needed for such investments, this restricted participation in cash crop production. Additionally, the returns to labour for such commodities were substantially higher and generated scope for a distinction between providers of capital and labour in production. This led to the creation of an African agricultural elite and rising levels of inequality in countries specializing in more capital intensive commodities.

Figure 8: Capital intensive commodities cocoa (left) and cattle (right)
Source: Commons Wikimedia

How does the study of inequality trends in colonial Africa help us move forward? The workhorse model for studying inequality has been the Kuznet's model, which relates structural change and economic growth to changes in inequality (Kuznets, 1955). According to this model, inequality follows an inverted-U shaped path through the industrialization process, with a rising phase at the beginning of industrialization. Most African countries during the colonial period were not industrializing, and therefore the Kuznet's model does not help us understand drivers of inequality. Instead, our analysis comes much closer to the 'Super Kuznets's curve' as described by Van Zanden (1995), that is, rising inequality goes hand in hand with economic expansion without structural transformation.

A better understanding of the underlying mechanisms also helps explain contemporary inequality levels. In the case of Botswana for example, today one of the most unequal countries in the world, inequality is often associated with the abundance of diamonds that the country possesses. Together with Ellen Hillbom I have shown that inequality in Botswana was already very high at the end of the colonial period, at the height of the cattle economy, and that inequality did not increase further after the discovery of diamonds (Bolt & Hillbom, 2016). An important factor linking the colonial and independence period in Botswana was the persistence of the agricultural elite (Hillbom & Bolt, 2018). I think an important avenue for further research is providing such long-term analyses of persistence and change for other countries.

Thirdly, this kind of research shows that the story of development is diverse and often unpredictable. As inspiring as big sweeping stories of development might be, I think careful and contextualized stories provide an important balance to the field, and therefore features prominently in our economic history teaching to our students.

Historical developments in health in Africa

Finally, I want to turn to historical developments in health in Africa.

This is a new research project with Jeanne Cilliers from Lund, and builds on joined work with my recently graduated PhD students Nicolai Baumert and Chanda Chiseni and my current PhD student Arlinde Vrooman. Health is a key area for Africa: the continent's disease burden has been heavy for centuries, as the continent was home to a particularly diverse and deadly set of tropical diseases (Doyle, 2022; Hartwig & Patterson, 1978, p. 4) Despite substantial progress over the past decades in terms of access to healthcare, still today, many of the global deaths from preventable diseases occur in Sub-Saharan Africa (Giles-Vernick & Webb Jr., 2013; Hartwig & Patterson, 1978; UN, 2019).

Health is also a key area in development where I think economic history can make a large contribution. We currently know relatively little about the histories of both colonial and global health initiatives in Africa, and there have been no systematic analyses of both disease processes and the success or failure of past health interventions (Giles-Vernick & Webb Jr., 2013). This means that the lessons of the past remain largely unused, unable to guide contemporary public-health decision making (Webb, 2020; Webb, 2013). This is an exciting and challenging research area, calling for interdisciplinary cooperation, between economic history, medical historians, geographers and will benefit from working with the Aletta Jacobs School of Public Health hosted at our university. A central question for this research is: what key historical dynamics continued to play a role in shaping African health outcomes and experiences in the 21st century? I believe three topics warrant attention:

The first is the tension between the context specific nature of disease patterns and country or region wide health interventions in Africa (Lee, 2021, p. 7). Due to the large variety in ecological zones in Africa, part of the disease transmission processes on the continent have always been very location specific (Hartwig & Patterson, 1978; Headrick, 1994). Indigenous methods of disease control were therefore also context specific and geared towards maintaining an ecological balance (Vaughan, 1992). When Western biomedicine was introduced under colonial rule, very little of this local knowledge was used. Instead, the development of the theory of tropical medicine in the early decades of the 20th century, was driven by international or global factors, such as the trans-border communication between colonial African territories, metropolitan cooperation and competition across imperial regimes, and a highly mobile cadre of scientific experts (Lee, 2021, p. 8). As a result, medical knowledge evolved fast, resulting in sometimes competing interpretations of disease causation and changes in chosen health interventions. The variety in newly generated medical knowledge in combination with the highly localized environmental and disease conditions of African territories are therefore a likely cause of the uneven implementation of healthcare provision in both colonial and post-independence Africa and is something to be explored.

A second central topic in this field is determining the overall health impact of Western biomedicine on African societies during the colonial period. On the one hand, colonial conquest by European nations radically changed disease patterns in Africa, due to the introduction of Eurasian diseases, and by changing and increasing patterns of communication, due to building new trade routes, and by intervening in local settlement patterns (Cordell & Gregory, 1994; Headrick, 1994; Maddox, 2006, 2010; Vansina, 2010). There is a broad consensus in the literature, that the early years of colonial rule had a negative effect on health outcomes of many African populations (Hartwig & Patterson, 1978; Patterson, 1974). However, this trend is thought to have been reversed by the 1930s, to some degree because of the introduction of basic colonial medical services. But also through the more interventionist approach, initiated by concerns over the potentially devasting effects of the continued spread of tropical disease (Marmot, 2015; Packard, 2016). Additionally, colonial health services provided increasing pre-natalist care, which may have contributed to increased fertility and child survival rates (Doyle, 2013; Lee, 2021, p. 82). How maternalist interventions, as well as other important advances such as the introduction of penicillin, played a role in changing Africa's demographic regime from very low population growth to the sustained and high population growth that characterizes many African countries today is a crucial question.

Figure 9: Maternity ward Kenya
Source: The National Archives UK CO 1069/143-33, Commons Wikimedia

And finally, and most understudied I think, is the role of African agency in responding to colonial and international healthcare intervention. Adherence to interventions and vaccination campaigns implemented under colonial rule, was far from universal and with wide variation across countries. This often to great frustration of colonial health campaigns, and later global disease eradication and prevention programmes.

However, seen from the African patient's perspective, the colonial health campaigns were often brutal, invasive and experimental. Responses to outbreaks of plague for example, resulted in racial segregation of urban space. African populations considered at risk of sleeping sickness were by force moved to other areas. And vaccinations against diseases such as smallpox were often forced on populations despite sometimes adverse side-effects. At the same time, the curative power of these measures remained often unclear or unexplained to patients (Doyle, 2022; Echenberg, 2002; Lee, 2021; Vaughan, 1992).

And although it seems likely that the short-term effects of at least basic vaccinations had a positive effect on life expectancy, the longer-term outcomes of the more invasive measures might have led to lower trust in later western biomedicine, leading to lower adherence of contemporary health interventions (Lowes & Montero, 2021). Lower trust in medicine due to negative experiences in the past have also recently been established in for example the United States (Alsan et al., 2020).

One of the factors that is currently ill understood, is if, in areas with more rapid Africanization of colonial healthcare provision by employing more African healthcare workers, trust in colonial medicine was higher, for example because local personnel was better able to explain medical concepts into local languages (Doyle, 2022, p. 9). Further, it is important to understand the link between historical adherence rates, trust in and Africanization of colonial healthcare provision and adherence to health interventions today and to what extent these historical factors also played a role in the uneven implementation of healthcare provision in both colonial and post-independence Africa as discussed above.

Figure 10: Medical work in Kikuyuland, Kenya.
Source: National Archives UK, Commons Wikimedia

Over the past decade and a half, African Economic History has rapidly expanded into a vibrant, interdisciplinary research field involving an increasing number of young scholars. This is important for liveliness of any academic discipline and makes clear how important our responsibility as a supervisor and mentor is, in order to benefit the next generation of researchers. It is one of the central roles we have. Prioritizing both professional development and general wellbeing of those we supervise will lead to more creative, more courageous and ultimately happier and more successful young scholars. I know, because I in my career have benefitted from inspiring scholars around me. Although I cannot mention all of them, I have decided to say a few words of thanks. I am grateful to be part of the GGDC, where I enjoy the collaborative work environment and I am also grateful to everyone at the Economic History Department in Lund who have been very welcoming to me. On a more personal level, I feel fortunate to have made many friends in the field, but two stand out: Leigh Garder and Ewout Frankema, whose friendship, support and many shared trips have been invaluable to me as a researcher and person. And finally, I am very thankful to Herman de Jong and Jan Luiten van Zanden who hired me as a post-doc after my PhD. Herman, you have been an enormous support and always generous with your time and advice. And Jan Luiten, working together has been very inspiring and one of the decisive factors in my academic career. I greatly enjoy our collaborations. And a final thanks to my family, Herbert, Luuk and Emilie.

Ik heb gezegd!

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