

A Service of



Leibniz-Informationszentrum Wirtschaft Leibniz Information Centre

Alexopoulou, Kleoniki; Juif, Dacil

#### **Working Paper**

Colonial Origins of the Threefold Reality of Mozambique: fiscal capacity and labour systems

African Economic History Working Paper Series, No. 21/2015

#### **Provided in Cooperation with:**

African Economic History Network (AEHN)

*Suggested Citation:* Alexopoulou, Kleoniki; Juif, Dacil (2015): Colonial Origins of the Threefold Reality of Mozambique: fiscal capacity and labour systems, African Economic History Working Paper Series, No. 21/2015, African Economic History Network (AEHN), s.l.

This Version is available at: https://hdl.handle.net/10419/242650

#### Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

#### Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.





# COLONIAL ORIGINS OF THE THREEFOLD REALITY OF MOCAMBIQUE: FISCAL CAPACITY AND LABOUR SYSTEMS

African economic history working paper series
No. 21/2015

Kleoniki Alexopoulou

Dacil Juif

Wageningen University
kleoniki.alexopoulou@wur.nl
dacil.juif@wur.nl

#### ISBN 978-91-981477-9-7

AEHN working papers are circulated for discussion and comment purposes. The papers have not been peer reviewed, but published at the discretion of the AEHN committee.

The African Economic History Network is funded by Riksbankens Jubileumsfond, Sweden

## Colonial origins of the threefold reality of Mozambique: fiscal capacity and labour systems

Kleoniki Alexopoulou & Dacil Juif \*

Wageningen University

#### Abstract

The question whether institutions in Africa were shaped by the metropolitan identity of the colonizer or by local conditions is lively debated in the African economic history literature. In this paper we contribute to this debate by revealing regional differences in tax capacity in the Portuguese colony of Mozambique. Samir Amin (1972) divided the African continent into three different "macro-regions of colonial influence": Africa of the colonial trade or peasant economy, Africa of the concession-owning companies and Africa of the labour reserves. Interestingly, we argue that Mozambique encompassed all three different "macro-regions" in one sole colony. In regression analysis we find differences in "tax capacity" along this threefold categorization. We use a newly compiled dataset that includes government revenue (direct/indirect taxes) raised on a district level between 1930 and the 1973, derived from the statistical yearbooks and national accounts of Mozambique. Focussing on one country has the advantage over cross country comparisons that one can keep the metropolitan identity constant. We conclude that the tax system developed as a response to the local conditions. and the differences between the three regions were exacerbated during colonial times.

<sup>\*</sup> Acknowledgments: We would like to thank Ewout Frankema, Pieter Woltjer, Kostadis Papaioannou, Christina Mumme and Carsten Burhop for their valuable comments. Also we owe our gratitude to the participants of the Workshop on "Colonialism, Growth and Development in the Southern Hemisphere, 1800-2000" at Lund University (April 2015) as well as the participants of the ERSA workshop on "Longitudinal data in African history" at Stellenbosch University (May 2015). We are grateful for the financial support provided by The Netherlands Organisation for Scientific Research (NWO) as part of the VIDI project *Is poverty destiny? Exploring long term changes in African living standards in global perspective*. The usual disclaimer applies.

#### 1. Introduction

Taxation is a crucial aspect of state formation. It is essential for a state to operate, not only to impose order and defend itself, but also to undertake growth enhancing investments in human development, such as in education and health, and in infrastructure enhancing market access. Hoffman (2015) recently defined a state's major characteristics as, first, being able to employ violence in a legitimate way<sup>1</sup>, and, second, having the ability to levy "substantial permanent taxation". The Berlin Act of 1885, which laid the guidelines for the new state formations by European colonial powers in Africa, emphasized these two aspects. As Crawford Young put it: "...The hegemony imperative, driven by the doctrine of effective occupation, immediately required a skeletal grid of regional administration. Its priorities were clear, its tasks minimal: the imposition of basic order and the creation of a revenue flow" (quoted in Herbst 2000, p. 59). Imposing direct taxation in Africa in colonial times was a particularly costly undertaking which occasionally turned out to have unwelcome consequences, such as mass emigration and even armed resistance.<sup>2</sup> Therefore, colonial powers usually limited their state (and tax) capacity to the urban centres and relied stronger on indirect taxation if trade volumes allowed for it.3 Consequently, the structure of government revenue which was inherited by independent African states was highly inadequate and they were often short to fund even minimal state services (ibid, p. 118).

However, there were some major differences in taxation systems across African colonies, which largely persisted until post-colonial times (Frankema 2010, Mkandawire 2010, Asafu-Adyaye 2014). Two recent studies argued for significant differences in fiscal capacity<sup>4</sup> (tax extraction relative to tax potential) within contemporary Sub-Saharan Africa along a threefold categorization into "macro-regions of colonial influence<sup>5</sup>" introduced by Samir Amin (1972): 1) "Africa of the colonial trade economy", areas with a long tradition of international trade, where indigenous peasants produced for the European market; 2) "Africa of the concession-owning companies", where colonial governments granted large land concessions and mineral rights to private companies. Those companies partly took over the administration and tax

<sup>&</sup>lt;sup>1</sup> This characteristic is based on Max Weber's definition of a state as "a community that successfully claims a monopoly over the legitimate use of violence within a given territory" (Hoffman 2015).

<sup>&</sup>lt;sup>2</sup> The capacity to enforce the payment of taxes involves the recruiting and training of tax inspectors and investments in systems of monitoring and compliance (Besley and Persson 2013).

<sup>&</sup>lt;sup>3</sup> However, direct taxation in colonial Africa had also several policy purposes, such as "civilizing natives", or pushing them into the wage labour market (Frankema and van Waijenburg 2014).

<sup>&</sup>lt;sup>4</sup> Fiscal capacity is the ability of a state to collect taxes. The power to tax was the essence of "state capacity" according to Charles Tilly, who coined the latter term.

<sup>&</sup>lt;sup>5</sup> Only the mainland is divided into the three macro-regions, whereas the islands constitute exceptions (Amin 1972).

collection in their territory; 3) "Africa of the labour reserves", territories in Southern Africa where the good climate and geography favoured large European settlements, and a large labour pool had to be readily available for the surrounding mines and settler farms. In the latter group of countries, colonial policy backed the interest of industry and settlers of pushing the indigenous population into wage labour by land expropriations and by raising hut or poll taxes. Mkandawire (2010) as well as Feger and Asafu-Adjaye (2014) found in panel and cluster regression analyses that the labour reserve economies are still characterized by the highest tax extraction, followed by cash-crop and concession economies. In the labour reserves, they argue, the colonial administration's interest in a booming mining and farming sector – as well as the intention of long-term settlement by many Europeans – served as motivation to introduce a more interventionist state, whereas in cash-crop and concession economies the involvement of the state in developing solid institutions was kept to a minimum. Besides the fact that fiscal systems that were in place in colonial times have a strong legacy, we'll argue that pre-colonial local conditions largely determined the type of fiscal institution that was introduced by the colonists (see also Frankema 2011). We show that substantial differences in tax capacity existed not only between colonies, but also within colonial states.

Mozambique is a very interesting case to study state formation, since it is not only culturally and ethnically fractionalized<sup>6</sup> as most African countries, given that its borders were artificially drawn by the Scramble for Africa, but until today consists of very diverse regions in terms of economic activity. Though Amin placed Mozambique in the category of labour reserves, we hold that the Portuguese colony was not only a labour pool but it integrated all three categories of local conditions into which Samir Amin divides the whole African continent. The north was (to some extent) a peasant-based economy, the central region was exploited by concession companies and the south functioned as a labour reserve for the mines of South Africa and Zimbabwe. These characteristics were also particularly pronounced in the case of colonial Mozambique, well-known for relying for longer than other colonies on forced

<sup>&</sup>lt;sup>6</sup> Fractionalisation has often been claimed to be a major distractor for economic development and cause of internal conflict. Post-colonial Mozambique can be considered as an example of state failure with historical causes. After the independence war (1964-1974), civil war dominated for 15 years (1977-1992). The communist campaigns of FRELIMO (Front for Liberation of Mozambique) attempted unsuccessfully to unify the ethnically and linguistically diverse population, since regional divisions even within the liberation movement were too deeply established (Collier, 2005, p.161). FRELIMO's opponent political party named as RENAMO (Mozambique Resistance Movement), which received funding from Rhodesia and (later) the apartheid regime of South Africa, recruited from privileged classes that grew in strength in the countryside. The agricultural policies of FRELIMO and the "southern" dominance in the political establishment broadened the discontent of the population in the northern provinces, that had nevertheless colonial roots (ibid, p.162).

labour<sup>7</sup>, and for sending large amounts of migrant labour to the surrounding mines. As the historian Penvenne stated in 1979, the history of Mozambique "is largely the history of the international leasing of migrant labour outside the country and the national commandeering of forced labour within the country" (p.2).

With this study we want to contribute to the colonial history debate on whether exogenously imposed metropolitan policies or economic and geographic conditions were more important in shaping colonial institutional development. Comparative long-term development studies on Africa have often emphasized the differences in institutional design between British and French colonial rule, especially regarding the establishment of systems of indirect rule and common law in British and of direct rule and civil law in French dependencies (Glaeser and Shleifer 2002, La Porta et al. 1998). Differences in schooling among former African colonies have also been ascribed to different attitudes of French and British rulers towards missionaries (e.g. by Cogneau and Moradi 2014). However, several scholars have also criticized the view that the identity of the colonizer was key in shaping the nature of institutions in colonies, but have turned the attention to local conditions, not only for the African case, but also for the Americas and Asia. For instance, Frankema and van Waijenburg (2014), who study fiscal systems in British and French colonies, claim that "the formation of the fiscal state was primarily determined by the opportunities and constraints set by local commercial and environmental conditions, including African responses to intensifying colonial connections". Feger and Asafu-Adjaye (2014), Mkandawire (2010), Engerman and Sokoloff (1997) and Papaioannou and Dalrymple-Smith (2015) similarly contradict the view that the colonial identity was key in shaping institutions, and emphasize local conditions. This study makes an important contribution to this literature by adding the case of a Portuguese colony, given that the Lusitanian dominions are highly understudied (especially in the international literature). Focusing on one colony has the advantage that we can abstract from the metropolitan identity as a source of variations and focus on testing the "local conditions hypothesis".

For our analysis we reconstruct the real tax revenue per capita and tax composition (direct/indirect taxes) of the nine districts of Mozambique during almost the whole colonial period (1930-1973), based on public revenue statistics published in the colonial statistical

<sup>&</sup>lt;sup>7</sup> Portuguese East Africa relied on forced labour until the 1960. Portugal did not sign ILO agreements on labour when British did in the 1920s or France in the 1940s. Forced labour was a pre-existing phenomenon, but intensified during Portuguese colonialism.

yearbooks.<sup>8</sup> We then focus primarily on direct (indigenous) taxation because it is generally more associated with state capacity than indirect taxation, which is rather related to the availability of an easy form of extraction. The three regions "of colonial influence" (north, centre and south) are found to have differed strongly in their contribution to the national direct tax revenue, whereby the south took the lead, and that this pattern persisted over time. In regression analyses and in an analytical narrative, we show that the regional differences in *tax capacity* stem mainly from initial conditions at colonization.<sup>9</sup> For the analytical narrative, we use also colonial reports that shed light on taxation and labour practices as well as migrant labour chains to South Africa. We argue that the Portuguese colonial government failed to unify the fiscal system, because it adapted to and exploited pre-existent local circumstances and probably even exacerbated the differences.

The paper is structured as follows. Section 2 provides a historiographical background on the Portuguese colonization and on pre-colonial features of the region that became Mozambique, as well as on colonial direct taxation practices. Section 3 presents a regression analysis of regional differences in direct taxation. The fourth section narrates the characteristics of the three zones that affected colonial fiscal capacity building based on qualitative and quantitative evidence. Section 5 concludes.

#### 2. Historical Background

Internal divisions have been present for centuries in Mozambique. Based on initial conditions such as geography, climate and population, pre-colonial and colonial institutions maintained, if not intensified, divisions between the north, the centre and the south. The three distinct geographical zones represented also different types of economic activity and agricultural production (Bowen 2000, p. 32). According to historians, these divisions were extended even to the post-colonial period reaching the present: "the north, the centre and the south of the country are still as disconnected from each other as they were during the first half of the 20<sup>th</sup> century" (Newitt et al. 2008, p. 707).

<sup>&</sup>lt;sup>8</sup> The whole territory was transferred to the control of the Portuguese colonial government between 1929 and 1942. Before, parts of it were under control of concession companies.

<sup>&</sup>lt;sup>9</sup> Our results are in line with Frankema and van Waijenburg's (2014) for French and British Africa. The historians Havik, Keese and Santos (2015) share our view on Lusitanian colonies: "the problems faced by the Portuguese in pacifying, administering and ultimately developing their empire were very similar to those confronted by the other colonial powers [...] Colonial administration (including the tax regimes) in Africa owed less to ideology and colonial theory than to conditions on the ground which might differ radically form one colony to another". In a similar vein, we argue that based on initial differences, the Portuguese colonial policy maintained, and probably even intensified, existing divisions between Mozambique's three zones.

#### 2.1 Pre-colonial conditions

In the late 15<sup>th</sup> century Vasco da Gama landed for the first time at the coast of Mozambique on his search for a new route to India. Since then, a few trading posts and harbours were established by Portuguese in the coast and along the Zambezi river. In the 18th and 19th centuries the Zambezi region in the centre of Mozambique became dominated by prazo holders. Prazos were originally land tracts granted by the Portuguese Crown to Portuguese merchants, but through intermarriage the prazo community became a mix of Portuguese and Africans. *Prazo* holders controlled large amounts of land, with the support of strong armies consisting of indigenous people. In the mid-19th century the greatest part of Portuguese activity in eastern Africa took place around these settlements along the banks of the Zambezi river (Newitt 1969, p. 67). A direct tax called "musocco" was imposed on the indigenous by the prazos, which until the 1900s was paid usually in kind (Newitt 1995, p. 217-296; de Castelo Branco 1909, p. 229; Ishemo 1989). The economy was mainly based on agriculture and the extraction of taxes, but they were also heavily involved in the slave trade. This region at the centre of Mozambique was characterised by a long tradition of trading coercive workforce. Clandestine slave trading continued in Mozambique even after the Anglo-Portuguese agreement attempted to combat it in 1842 (Pitcher 1991, p.50). Possibly, slaving was one of the main factors causing depopulation and labour shortage in pre-colonial Mozambique.

Indigenous people often migrated to avoid the efforts of settler farmers, *prazo* and plantation owners to recruit forced labour. By the 1850s local peasants of the south of the colony were moving to Natal in South Africa to work in white settler farms, while from the 1870s onwards they started to migrate to the diamond mines in Kimberley and from 1886 to the gold mines in Transvaal. In contrast, in northern Mozambique Africans had still access to land and to subsistence production as well as access to markets. Trading with the Arabs in the mid-19<sup>th</sup> century resulted in the establishment of trade relations with British Nyasaland and German Tanganyika later on. This commerce and the ability of peasants to continue their livelihood partly explains why the Niassa concession company later had difficulty controlling northern Mozambique in the 1890s (Pitcher 1991, p.50).

Under the international pressure of the Scramble for Africa in the 1880s, Portugal had to secure and expand its "effective occupation" over its African territories. <sup>10</sup> By the 1890s, five different cultural and political regions had emerged in Mozambique: a coastal zone under Portuguese control; a northern region of peasant agriculture under the influence of Islamic chiefs who performed long-distance trade; the central region of the Zambezi valley, dominated by *prazos*; the Gaza kingdom and the Delagoa Bay (today Maputo Bay)- long disputed between Portugal and Britain- in the south (Newitt et al. 2008, p.710).

Gradually, the pre-colonial political and cultural differences between these regions led to the formation of three zones (north, centre and south) with distinct economic systems that persisted throughout the 20th century. The south functioned increasingly as a labour pool for the surrounding mines and settler farms. In order to establish and strengthen its colonial rule, Portugal delegated the administration of central (and parts of northern) Mozambique to chartered companies, which were allowed to raise taxes, delegate land and mining rights and had their own police force. This expenditure saving practice was used by other colonial powers in Africa as well, such as the Belgian Congo and British Northern and Southern Rhodesia. Three companies shared around fifty percent of the whole colony's territory: the Niassa Company was active in the northern zone, dominated by indigenous peasantry, and the Mozambique Company as well as the Zambezia Company operated at the central zone. Their concessions were ended in 1929 and 1942 respectively by Salazar's "New State" in Portugal, because they were considered as ineffective in terms of capital accumulation and tax revenue. The divided administration between colonial and company rule was an impediment to the unification of the distinct zones of Mozambique. No efficient road connected the north with the south of the country until in the 1900s concession companies started investing moderately in infrastructure.

#### 2.2 Colonial taxation and labour practices

Although tax collection existed in pre-colonial times in the central zone, the fiscal system – especially the collection of taxes paid in cash– clearly also has a colonial heritage. One of the most important aims of early colonial administrations in Africa was to introduce a system of

<sup>&</sup>lt;sup>10</sup> In the General Act of the Berlin Conference, which can be seen as the formalization of the Scramble for Africa, the principle of "effective occupation" stated that powers could acquire rights over colonial lands only if they possessed them or had treaties with local leaders, flew their flag there and established an administration in the territory to govern it with a police force to keep order (Herbst, 2000, p. 71-72).

tax collection. They had various motivations for this, apart from the fact that taxation was one of the most significant indications of "effective occupation" as defined in the Berlin Conference (Herbst 2000, Santos 2007a). First, it was necessary to raise taxes in order to finance the colonial state without putting a burden on the Metropole (which was not always possible). Moreover, imposing indigenous taxes was supposed to have "disciplinary" power, for instance by pushing the indigenous population into the wage labour market (this was also the rhetoric of Portuguese colonial administrators), and it was meant to contribute to the monetization of the economy.

However, the elevation of indigenous taxes in Africa was not an easy task and thus, many colonial states relied as much as possible on indirect taxes (Herbst 2000). First, a complex state apparatus was needed in order to raise direct taxes and putting it in place was costly (it involved recruiting and training of tax inspectors and investing in systems of control, also in very backward regions); second, the elevation of hut and poll taxes often caused resistance, which was costly to subdue; third, it could lead to undesirable mass emigrations from often already underpopulated regions. Moreover, many areas in Africa were, at least in early colonial times, not monetized, since indigenous peasants relied on subsistence farming, making cash tax payments difficult. In Mozambique, however, where natural resources were scarce and trade volumes were relatively insignificant, the colonial state had to rely to a larger extent on direct taxation than in most other colonies. For instance, the value of exports per capita in Mozambique was one third of that of the Belgian Congo in 1960 and less than half the value of per capita exports in the neighbouring Portuguese colony, Angola (Mitchell, 1982). As Frankema and van Waijenburg (2014, p. 393) stated in their study on French and British Africa: "The highest direct tax shares were to be found in the least commercialized areas".

From the 1870s to 1900s the direct taxes in Mozambique could be paid either in kind (*em generos*) or in money (*em dinheiro*), depending on the local circumstances (Castro e de Morais 1948, p.37-38). However, the advantages of direct taxes paid in money over those paid in kind became gradually undisputable. In the early years of the 20<sup>th</sup> century the governor of Lourenco Marques in Mozambique argued against the payment of taxes in kind. In his notes he highlighted, among other things, the transportation and storage costs derived from such transactions as well as the fluctuating prices and thus the questionable value of the exchangeable products. But most importantly, he emphasised the scarcity of labour in the area, caused by the fact that indigenous people did not need to pay taxes in money, so they

did not need to work for companies to get wages (Aguiar n.d., p.75-76). Therefore, according to the author, the payment in kind constrained the effectiveness of colonial rule and hampered the economic development of the region.<sup>11</sup>

For decades, Mozambique was characterised by a dualistic-racial system of local governance. As Mamdani (1996) observes, the so-called "indigenato" was a political system similar to what existed elsewhere in Africa: it subordinated Mozambican subjects to tribal chiefs and Portuguese citizens to colonial administrators (Mamdani 1996, in: O' Laughline 2000, p.16). The code of the *indigenato* was formally adopted in 1928 and was based on previous perennial arrangements of citizenship and governance. The *indigenato* basically meant for the indigenous that they were forced to work (they had the "moral" obligation to do so), or alternatively produce agricultural surplus for the market, and that they had to pay taxes. Local authorities named "regulos" and "cabos" were responsible for hut tax collection and forced labour recruitment and were paid by the colonial state through commissions (Isaacman et al. 1983, p.29). 13

It is well known that colonial states relied also on forced labour for building up their infrastructure while saving public expenditures on labour. Frankema and van Waijenburg (2014) have argued that forced labour functioned as an implied type of government tax in French West Africa. The same reality was met in the Portuguese colony: forced labour was used as complementary to raising direct taxes. Especially in areas that were not monetized and could not contribute to the tax revenue and where labour was needed for plantations the state or concession companies relied on forced labour. Until 1962, various forms of forced labour were in place in Mozambique: coercive (*compelido*) and punitive (*correcional*) labour, domestic labour by women working in European households, and forced labour exile, for instance to the cocoa plantations in Sao Tome (Kagan-Guthrie 2011). O' Laughlin (2002) notes that both men and women were impressed for variable periods of punitive labour for

•

<sup>&</sup>lt;sup>11</sup> Already in the 1890s, the prominent regional commissioner of Mozambique, Antonio Enes, had expressed these ideas on the crucial role of indigenous people as tax payers and (either free or unfree) wage workers, in the process of monetisation and labour intensification. The latter would eventually contribute to agricultural development and the expansion of "civilisation" (Ferreirinha 1947, p. 5). This was for Enes the principal mission of colonialism. Taxation in the whole of colonial Africa has been perceived as a "discipline" and penal tool, in Foucauldian terms (Foucault 1979), that aimed at moralisation and stimulation of Africans' industriousness (Bush and Maltby 2004).

<sup>&</sup>lt;sup>12</sup> However, racism was not predominant in the ideology of the Portuguese colonial administration, as it was in South Africa for instance.

<sup>&</sup>lt;sup>13</sup> In taxation affairs the local leaders were used mostly as instruments by the colonial state, for the implementation of policies that were formed by the Metropole.

<sup>&</sup>lt;sup>14</sup> For instance, the case of the Belgian Congo, where forced labour was broadly used by the state, is known for its committed atrocities.

non-criminal offenses such as not paying tax, or escaping from contract labour. Although the Portuguese colonies in Africa were not the only ones to rely heavily on forced labour, they did so for much longer than the French and the British despite international pressure to end it. Portugal did not ratify ILO (International Labour Organisation) agreements on abolition of forced labour in its colonies earlier than 1956, while Britain complied with international labour standards already in 1930 and France in 1937 (de Matos 1989).

Keeping in mind the complementarity between cash tax payments and forced labour practices, as well as the strategic choice of colonial governments to raise taxes in order to push the population into the wage labour market (and the other way around), the interconnection between taxation and labour appears to be very strong. The next sections will show that regional divisions within Mozambique implied also differences in taxation patterns and systems of labour in practice; and that these differences remained largely unchanged over time.

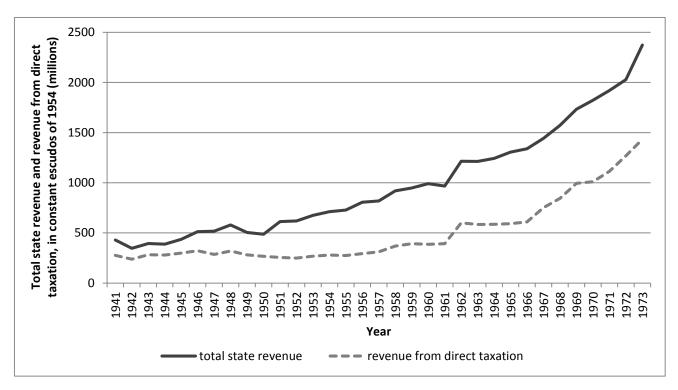
#### 3. Persistence in tax inequality: Data and empirical results

#### 3.1 Data

For our analysis, we chose to focus only on direct taxes, because these were more difficult to collect and therefore generally associated with greater state capacity, whereas indirect taxes are rather associated with the availability of an easy source of extraction, such as trade. As mentioned in the preceding section, but and poll taxes constituted a relatively high share of total state revenue during colonial times in Mozambique, given that trade was relatively unimportant. Direct taxation contributed to around 50% of the value of total state revenue in the period under study (the share was around 60% in the 1940s, decreased to around 40% in the 1950s and increased again to 50% and 60% in the 1960s and 1970s respectively) (see Figure 1).<sup>15</sup>

Figure 1: Total state revenue and revenue from direct taxation (in constant escudos of 1954)

<sup>&</sup>lt;sup>15</sup> As Figure 1 shows, the total tax revenue increased fivefold between 1941 and 1973, and the sharpest rise occurs in the last 13 years, from 1,000 million to almost 2,500 million escudos. The reasons could be various, including the larger military expenses during the independence war (1964 to 1974).

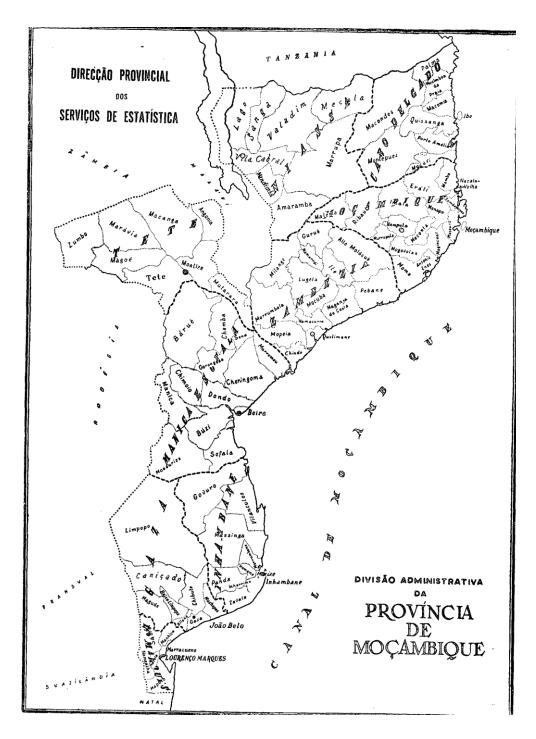


**Source:** Yearbooks of Mozambique

We reconstruct real taxes per capita for the nine districts of Mozambique by dividing the total direct tax revenue (which is composed to 80% of indigenous taxes) by the total population<sup>16</sup> of the corresponding district and deflate the value by the consumer price index of the Portuguese escudo, the currency in which the tax revenues are recorded. We have these data on an annual basis from 1930 until the end of the colonial period in 1973, derived from the section "public administration", subsection "finance", of the statistical yearbooks of the colony of Mozambique. The per capita tax rate differs strongly between districts and the order is highly persistent over time. For instance, the R-Squared of the robust regression of per capita direct tax revenue in 1973 on per capita direct tax revenue in 1930 is 0.95.

Figure 2: Map of Mozambique showing districts

<sup>&</sup>lt;sup>16</sup> Population data are interpolated between censuses since censuses were carried out only every five or ten years.



Source: Statistical Yearbook of Mozambique 1965

We argue that the conditions that determined the levels of taxation mainly differed between three larger zones: north, centre and south, each consisting of three districts. The north includes the districts of Niassa, Cabo Delgado and Mozambique; the centre comprises Zambezia, Tete and Manica e Sofala; the south refers to Gaza, Inhambane and Lourenco

Marques (see map in Figure 2). This is shown in Figure 3, which displays the total direct tax revenue per capita by zone between 1930 and 1973 in constant escudos of 1954.

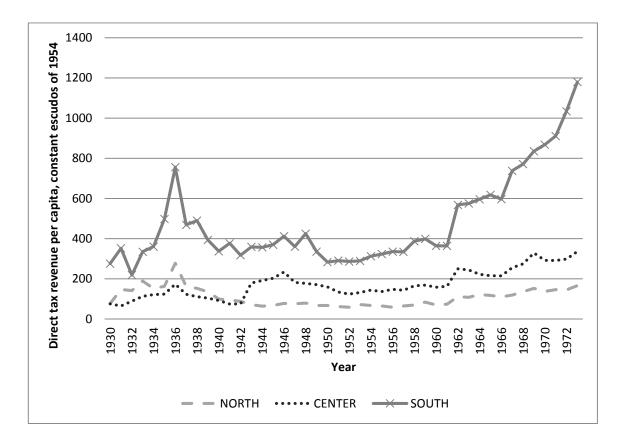


Figure 3: Real direct tax revenue per capita

Source: Statistical yearbooks of Mozambique

In the decade of the 1930s the average tax payer of the southern region paid around three times the amount of taxes than the one living in the northern or central area (excluding the district of Manica e Sofala, which was under concession company control until 1942). In this first decade, the per capita tax rate in the northern region was however slightly higher than in the central region, whereas between the 1940s and 1970s the trend reverted and the per capita tax rate in the central area (including Manica e Sofala) was on average double the

northern.<sup>17</sup> In the latest period, the 1970s, the southern per capita direct tax revenue reached around six times the northern one.

Thus, the three regions not only contributed disproportionately to the total (direct) tax revenue, but also the *per capita* direct tax rate was much higher in the south, throughout colonial times until Independence. The different native tax rates applied in each zone or even district provide us with a plausible explanation for this (we have this information only for scattered years, found in official correspondences). For instance, in 1948 the indigenous tax rate in the southern zone (in the districts of Inhambane, Gaza and Lourenco Marques) was 250 Escudos on an annual basis, while in the central district of Manica e Sofala the rate ranged between 100 and 210 Escudos, depending on the "circunscrição" and in the northern district of Niassa the rate ranged between 80 and 130 Escudos (Inspeccao superior dos negocios indigenas, 1951).

#### 3.2 Regression Model

We aim to know where the differences in tax extraction derive from and if the differences between the three regions (north, centre, south) remain significant after controlling for more straightforward potential determinants of the capacity to extract direct taxes, such as population density, urbanization, the dependency ratio, or the share of population employed in agriculture.<sup>19</sup> We do this by running regressions with per capita direct taxes as a dependent variable. In a second step we build a measure of "tax effort" following the same procedure as earlier studies on taxation (Stotsky and WoldeMariam 1997; Mkandawire 2010).

The regression model we want to estimate has the following form:

DIRECT TAXES P.C. 
$$dt = \alpha + \beta_1 X_{dt} + \beta_2 SOUTH_{dt} + \gamma_t + \lambda_d + \varepsilon_{dt}$$

<sup>&</sup>lt;sup>17</sup> Santos argued that in the 1910s the administrative districts of the south provided *-in total, not divided by population-* 90% of the hut tax revenue, collected directly by the government, while the centre and the north together did not exceed 10% of the total (Santos 2014, p.18). The contribution of the northern and the central zones to total hut tax revenues of Mozambique gradually increased and by the 1940s, the shares of the three zones to indigenous tax revenue became almost equal (Santos 2007, p.201). However, these findings do not account for the size of the population in each zone.

<sup>&</sup>lt;sup>18</sup> Administration unit smaller than the "distrito" and bigger than the "posto".

<sup>&</sup>lt;sup>19</sup> These variables have been posited to be determinants of the tax capacity in earlier studies, such as Stotsky and WoldeMariam (1997) and Mkandawire (2010).

**Table 1: Summary Statistics** 

|                          |      |      | Std. |      |       |
|--------------------------|------|------|------|------|-------|
| Variables                | Obs. | Mean | Dev. | Min. | Max.  |
| Direct Taxes per capita, |      |      |      |      |       |
| deflated (ln)            | 382  | 3.94 | 0.93 | 1.75 | 6.97  |
| Population density       | 396  | 9.17 | 6.98 | 1.36 | 44.92 |
| Urbanization             | 396  | 0.03 | 0.04 | 0.01 | 0.15  |
| Agricultural share       | 396  | 0.72 | 0.18 | 0.31 | 0.92  |
| Dependency ratio         | 396  | 0.83 | 0.13 | 0.54 | 1.09  |
| Port (dummy)             | 396  | 0.19 | 0.40 | 0.00 | 1.00  |
| Whites share             | 396  | 0.02 | 0.03 | 0.00 | 0.11  |
| South (dummy)            | 396  | 0.33 | 0.47 | 0.00 | 1.00  |

Table 1 displays the summary statistics of the variables included in our regressions. The dependent variable, direct taxes per capita, denotes the natural logarithm of total direct tax revenue divided by the total population of the corresponding district and deflated by the consumer price index of the Portuguese escudo, the currency in which the taxes are recorded. d stands for the districts (d=1,2,...,9) and t for the time in years (t=1,2,...44). The district as a unit of observation is chosen because tax rates were actually set and taxes were levied on a district level, and thus it makes no sense to use smaller regional units to observe tax capacity.  $\alpha$  is the overall constant,  $\lambda_d$  are unobserved time invariant district effects,  $\gamma_t$  are time fixed effects and  $\varepsilon_{dt}$  is the error term.  $X_{dt}$  is a bundle of control variables that have a potential impact on the direct tax rate. We included the dependency ratio, population density (population per square kilometre), urbanization (share of urban population in total population), the share of population employed in agriculture, the share of white population to total population and the presence of an important port. In theory, population density has been argued to be both positively and negatively related to tax capacity. A dense population makes tax collection easier, but it has also been suggested that population density leads to greater anonymity of citizens and may undermine tax effort (Mkandawire 2010). Here, the districts at the coast have a higher population density than those in the inland; Tete and Niassa, the only landlocked districts, have the lowest density of population and Lorenzo Marques, Mozambique and Zambezia have the highest. This is probably also due to the high emigration to the neighbouring British colonies, which attracted labour by paying higher wages (Newitt 1995). Urbanization might influence tax capacity in a similar vein as population density. Herbst (2000) argued for instance that in African colonies the government often limited its power to the urban centres, where the majority of colonists resided, and ignored the peripheral

areas. Since this state capacity could be linked to tax capacity, urbanization will probably influence the tax rate positively.

The age structure of the population (represented by the dependency ratio) probably influences our dependent variable, because only the economically active population pays taxes, whereas our per capita direct tax variable comprises the whole population. A lower dependency ratio would mean that there are more people to be taxed in the population, and thus it could enter the equation positively. However, it has also been argued that a larger share of young and of old people (i.e. a higher dependency ratio) calls for higher expenditures in schools and social services, and thus requires more tax collection. Furthermore, the share of whites in the total population of the district could be a potential determinant of the tax rate according to Amin's theory that in settler economies the native population was pushed into wage labour by the elevation of indigenous taxes. The white population itself was mostly exempted from paying direct taxes. The share of the population employed in agriculture is expected to enter the equation negatively, also because it includes subsistence farmers who have difficulty in paying taxes in cash (Stotsky and WoldeMariam 1997). The (time invariant) dummy variable "port" takes the value of 1 for the districts of Manica e Sofala and Lourenco Marques, because they have the two most important ports of the country with respect to trade activity according to the statistical yearbooks of Mozambique: Maputo and Beira. It is useful to control for an important port (or capital city) because the availability of employment opportunities and cash wages there were higher than in rural or landlocked areas.

"South" is a time invariant dummy variable that takes the value of 1 for the three southern districts, that also sent migrants to the surrounding mines (Inhambane, Gaza and Lourenco Marques), and 0 else. The omitted regions are "centre" (districts of Tete, Zambezia and Manica e Sofala) and "north" (Mozambique, Niassa and Cabo Delgado). We are very much interested in knowing if after controlling for all the more straightforward determinants of tax capacity, the difference in taxation between the southern region and the others remains significant and thus this variable captures an unexplained portion of the variation.

#### 3.3 Regression results

The regression results in Table 2 suggest that most variables enter the equation with the expected sign. We used the random effects model that is more suitable for panel datasets than

OLS because it allows to exploit both spatial and temporal dimensions of the tax data.<sup>20</sup> The dependent variable is – as mentioned before – the logarithm of the revenue from direct taxes divided by the population in constant escudos of 1954. Population density is positive and significant throughout all specifications. This could point to an easier extraction of taxes in highly populated areas, due to a higher presence of tax administrators and easier control of the area. The existence of a port, which also captures the effect of the larger cities Maputo and Beira, has a positive and highly significant effect as well. This could be a sign of higher wages and relatively more people earning wages at all in cities with a port and urban centres in general. The coefficient for the dependency ratio is positive and significant, which could in this case also be related to a large share of the working age population being absent migrant workers. The share of whites in the population enters the regression with a positive and significant sign when included on its own. The share of people working in agriculture is however insignificant in most specifications. For the multivariate regression model, we have to take into account that some of the variables are highly correlated with each other, for instance, urbanization is highly correlated with the share of whites in the population and the share engaged in agriculture (see also the correlation matrix in the Appendix). In order to check for multicollinearity and to decide on which variables should definitely enter the regression, we calculate the variance inflation factor for the explanatory variables (vif). We opt for dropping the variables with a vif higher than 10, which are urbanization and the share of whites in the population. That leaves us with the regression models (7) and (8). In specification (8) we only consider the period after 1942, because since then the whole territory of Mozambique comes under colonial rule and statistics include the former concession company district of Manica and Sofala, so we have a completely balanced panel. The most important result here is that the southern zone variable has a positive and significant coefficient even after controlling for the more straightforward determinants of tax capacity. We'll argue that this coefficient captures the extra tax collection effort that is put by colonial authorities in this area.

Our results are in line with those of Mkandawire (2010) and Feger and Asafu-Adjaye (2014) for their African cross-country studies – economies that functioned as "labour reserves" (here, the southern districts) have a higher tax capacity, related to a higher tax *effort* (higher investments in collection of taxes) during early colonial times. One caveat of our study concerns the way we define our dependent variable. On a regional level, we cannot

<sup>&</sup>lt;sup>20</sup> The fixed effects model is more appropriate for shorter time periods and larger samples. The Hausman Test also rejected the hypothesis that the fixed effects model yields the best results.

compile taxes as a share of GDP in the vein of Mkandawire (2010) or Feger and Asafu-Adjaye (2014) due to the lack of data on regional income levels for the colonial period. The way we measure the tax capacity is by dividing the total direct taxes by the total population. One could argue that taxes per head are only higher because incomes are higher. However, the indigenous (hut or per capita) tax during colonial times was not coupled to income, but was the same tax amount for every household or man in a regional unit, depending on the region (Inspeccao superior dos negocios indigenas 1951).

Table 2: Regression results

| Model                 | (1)                  | (2)                 | (3)                 | (4)                 | (5)                  | (6)                 | (7)                 | (8)                 | (9)                 |
|-----------------------|----------------------|---------------------|---------------------|---------------------|----------------------|---------------------|---------------------|---------------------|---------------------|
| Dependent<br>Variable | Direct tax rate      | Direct tax rate     | Direct tax rate     | Direct tax rate     | Direct tax rate      | Direct tax rate     | Direct tax rate     | Direct tax rate     | Direct tax rate     |
| Urbanization          | 16.670***<br>(1.820) |                     |                     |                     |                      |                     |                     |                     |                     |
| Population density    | ,                    | 0.035***<br>(0.007) |                     |                     |                      |                     | 0.024***<br>(0.006) | 0.044***<br>(0.005) | 0.047***<br>(0.005) |
| Dependency ratio      |                      |                     | 3.104***<br>(0.447) |                     |                      |                     | 2.374***<br>(0.346) | 1.850***<br>(0.311) | 1.626***<br>(0.306) |
| Agricultural share    |                      |                     |                     | -1.182<br>(1.246)   |                      |                     | 1.380*<br>(0.794)   | 0.475<br>(0.666)    | -0.650<br>(0.557)   |
| White share           |                      |                     |                     |                     | 22.000***<br>(2.296) |                     |                     |                     |                     |
| Port                  |                      |                     |                     |                     |                      | 1.740***<br>(0.409) | 2.104*** (0.317)    | 1.745*** (0.284)    | 1.507***<br>(0.284) |
| South                 |                      |                     |                     |                     |                      |                     | 1.006*** (0.268)    | 0.718*** (0.242)    |                     |
| Constant              | 3.420***<br>(0.172)  | 3.641***<br>(0.206) | 1.397***<br>(0.290) | 4.812***<br>(1.027) | 3.547***<br>(0.168)  | 3.580***<br>(0.156) | -0.007<br>(0.791)   | 0.978<br>(0.652)    | 2.225***<br>(0.501) |
| Observations          | 382                  | 382                 | 382                 | 382                 | 382                  | 382                 | 382                 | 279                 | 279                 |
| District No.          | 9                    | 9                   | 9                   | 9                   | 9                    | 9                   | 9                   | 9                   | 9                   |
| R2 overall            | 0.6287               | 0.4391              | 0.2342              | 0.5132              | 0.6146               | 0.6015              | 0.653               | 0.857               | 0.813               |

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

a includes only the period after 1942 (until 1973)

#### 3.4 Tax Effort

In this section we will construct a measure of "tax effort", which reflects the tax extraction relative to the possibilities to extract taxes. The tax effort variable is constructed in the same way as in earlier studies which use the total taxes per GDP as a unit of analysis instead of direct taxes per capita, for instance Stotsky and WoldeMariam (1997) and Mkandawire (2010). Tax Effort is defined as the ratio of "taxable capacity" to the actual taxes raised, whereby "taxable capacity" is the predicted value for taxation derived from a regression on several determinants of the tax rate that are related to the structure of the economy. In our case, the regression above - we will use Model 9, the most parsimonious one, excluding the regional variable "south"- will give us the predicted values for direct taxation (per capita), which will be used to construct "tax effort". 22 Given that the tax effort variable is a ratio, a value above one means that, based on the economic and demographic circumstances and therefore the possibilities to raise taxes, districts extract higher taxes than predicted by the model. For districts in which the actual taxes raised are below those predicted by the model, tax effort will be below one. Table 3 displays the "tax effort" in all the different districts as well as the mean of the southern districts and the remaining districts. It becomes clear that regarding "tax effort", the southern districts perform better than the rest, i.e. the tax rate is higher than expected given the economic conditions. The "tax effort" is below one in Niassa, Tete and Manica e Sofala, two of them former concession company areas.

Table 3: Tax Effort

| District        | Mean of direct | Predicted direct | "tax effort" |  |
|-----------------|----------------|------------------|--------------|--|
| District        | taxes pc       | taxes per capita |              |  |
| Inhambane       | 3.86           | 3.38             | 1.14         |  |
| Gaza            | 3.79           | 3.37             | 1.12         |  |
| Lorenzo Marques | 5.82           | 5.41             | 1.08         |  |
| Total SOUTH     | 5.61           | 4.06             | 1.11         |  |
| Mozambique      | 3.91           | 3.72             | 1.05         |  |
| Niassa          | 2.83           | 3.39             | 0.83         |  |
| Cabo Delgado    | 3.46           | 3.21             | 1.08         |  |
|                 |                |                  |              |  |

<sup>&</sup>lt;sup>22</sup> Our explanatory variables in the regression models of the preceding section differ from those used by Stotsky and Wolder Mariam and others in that we don't observe the total (direct and indirect) tax rate but only the direct taxes per capita.

| Tete            | 3.24 | 3.55 | 0.91 |
|-----------------|------|------|------|
| Zambezia        | 3.96 | 3.74 | 1.06 |
| Manica e Sofala | 4.81 | 4.65 | 0.94 |
| Total REST      | 3.70 | 3.71 | 0.98 |
|                 |      |      |      |

We will argue in the follow up of the paper that the differences in tax effort were related to initial conditions at colonization and that these were, if anything, exacerbated during the colonial period. Apart from the geographic and climatic conditions, an important pre-colonial phenomenon was the migratory tradition from the southern districts to South Africa and Southern Rhodesia. Circular labour migrants were important targets for direct taxation, because of the relatively high wages that were earned (in cash) in the mines of South Africa and because they were easy to track. A simple OLS regression, based on only nine observations, of the tax effort in the late colonial period (after 1950) on several "initial condition" variables including rainfall and temperature (average of 1910-1930) and a coastal dummy variable derives a significant – though small – positive impact of the share of migrants per thousand inhabitants in the early period (average of 1930 to 1950). The results of the regression are reported in Table 4. In the following sections we will relate the divergent tax capacity in the regions of Mozambique to the historical background.

Table 4: OLS regression of tax effort after 1950 on initial conditions

|                     | (1)                   | (2)                   |
|---------------------|-----------------------|-----------------------|
| Dep var.            | Tax effort after 1950 | Tax effort after 1950 |
|                     |                       |                       |
| Migrants per 1000   | 0.002**               | 0.002**               |
|                     | (0.001)               | (0.001)               |
| Rainfall 1910-30    |                       | 3.64e-05              |
|                     |                       | (4.97e-05)            |
| Temperature 1910-30 |                       | 0.009                 |
|                     |                       | (0.005)               |
| Coast               |                       | 0.058**               |
|                     |                       | (0.017)               |
| Constant            | 0.470***              | 0.182                 |
|                     | (0.013)               | (0.165)               |
| Observations        | 9                     | 9                     |

#### 4. Threefold fiscal institutional development in the colonial era

We showed in the previous section that "tax effort" was higher in the south of Mozambique than in the rest of the colony and we argued that the differences between the three zones were caused by specific context-dependent realities in the early colonial period, which lead the colonial administration to invest more or less in fiscal capacity building. In this section we will narrate these region-specific realities that affected colonial fiscal capacity building. In the southern zone, the migration labour flows directed mainly to the mines in South Africa enabled the indigenous workers to pay direct taxes to the state at a higher rate. Moreover, a boom of settler migration from Portugal in the 1940s brought the development of a settler farm economy. As a result of an increase of state assistance to Portuguese settlements after the 1930s (O' Laughlin 2000, p.10), this zone became more competitive in terms of production and trade and thus raised more indirect as well as direct tax revenue.

On the other hand, in the other two zones (north and centre), the old company concessions were not renewed by Salazar's new regime in Portugal (1932 to 1968) and forced cropping of cotton was introduced by the colonial rule, particularly in the north (ibid). In the period 1938-1961 several campaigns took place aiming at reducing the autonomy of rural producers and restructuring the labour process. The Colonial Cotton Board was formed (Isaacman 1992, p.493) and signed agreements with twelve firms that gained police power over half of the colony.<sup>23</sup> Cotton zones were defined and their inhabitants were forced to cultivate cotton and sell their produce at low prices, which resulted in growing hostility from the side of peasants towards the colonial state and finally poor output. In short, this shift of colonial policy intensified the regional dynamics that were already set in motion.

#### 4.1 The way to gold: institutionalising migration labour in the south

In the vein of Samir Amin (1972), the south of Mozambique (Inhambane, Gaza and Lourenco Marques districts) functioned as a labour reserve for the surrounding gold mines and European farms. Since the first discoveries of diamonds in Kimberley (South Africa) in

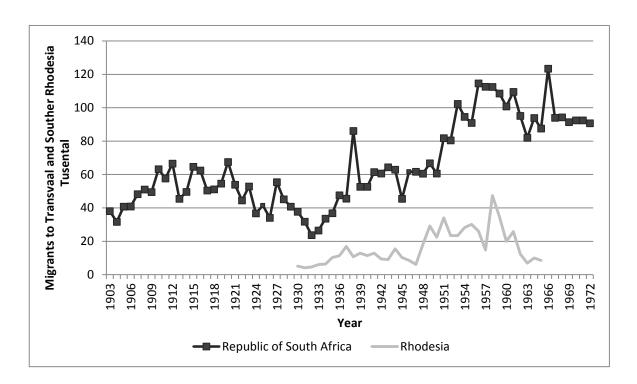
<sup>&</sup>lt;sup>23</sup> The Portuguese presence was limited in these areas and therefore the assistance of local chiefs was needed (ibid, p.495)

1867 and especially of gold in the Witwatersrand in 1886, southern Mozambican migration to the mining centres has played a crucial role for the industry. The tradition of migration to South Africa has even earlier roots in the mid-19<sup>th</sup> century, when sugar growers in Natal started to recruit labour in the Portuguese colony. And thus, emigration from the South of Mozambique was clearly a pre-colonial phenomenon.

As Figure 3 shows, 60,000 people on average migrated every year from Mozambique (principally from the southern part) to the mines of Transvaal until 1930, and the numbers almost doubled until the late 1960s. Migration was strongly reduced in the 1970s when the Frelimo movement closed several WNLA recruitment centres and it remained low until 1984. The recorded numbers include both legal and illegal migration (the colonial office also kept record of "clandestine migration" (or not-recruited migrants), which usually accounts for around 30 per cent). Mozambique was almost constantly the country that sent the largest share of workers to the mines of South Africa (First et al. 1998, p. 204).<sup>24</sup>

Figure 3: Total number of migrants from Mozambique to the mines of South Africa (and Southern Rhodesia)

<sup>&</sup>lt;sup>24</sup> In 1904, the share of Mozambican workers to the total numbers of workers was 66% and in 1920 it was 56%. In 1936 the percentage decreased to 28% but in 1956 it rose again to 55% (First et al. 1998, p. 204). Finally, in 1970 it dropped again to 28%, probably because of the increasing influence of the FREELIMO independence movement, which criticised severely the huge migration streams from Mozambique and especially the exploitation and surplus extraction from the side of the apartheid regime in South Africa.



Source: Statistical yearbooks of Mozambique

Historians have argued that the large scale exploitation of gold reserves in South Africa would never have been profitable (not even today), if it wasn't for the mobilization of large numbers of unskilled and low paid indigenous labourers from throughout Southern Africa (Feinstein 2005; Crush et al. 1991).<sup>25</sup> But not only the mining companies and the state of South Africa (increasingly interventionist and cooperating with the private sector) profited from migration labour, but also the sending countries secured large revenues from the migration flows to the mines. In more recent times, in the 1990s, almost a third of Mozambique's GDP derived from migrant miners' wages (Crush et al. 1991, p. 2). In the early colonial period, mining labourers were of the few who earned money in cash, and could therefore contribute to the fiscal revenue of the colonial state.

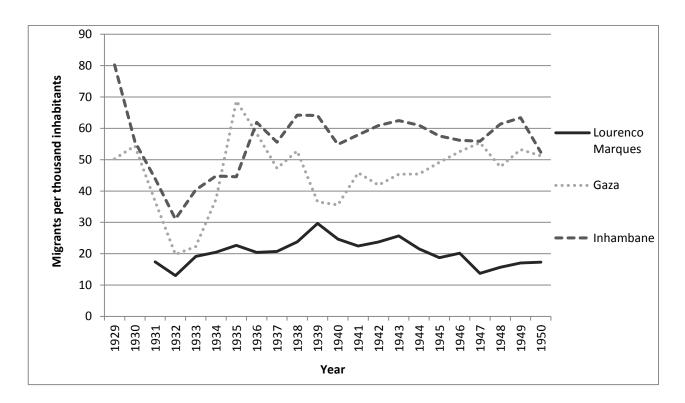
The Portuguese colonial government soon realized that it had to take over some control over the migration streams in order to make profit from it. It signed a long series of interstate contracts with South Africa that strictly regulated the "export" of labour, starting in

<sup>&</sup>lt;sup>25</sup> In 1912 the Chamber of Mines granted the monopoly of recruiting to two organizations, allowing to uniform recruiting policies and control wage levels: The Native Recruiting Corporation (NRC), which operated in South Africa, and the Witwatersrand Native Labour Association (WNLA), operating elsewhere. Moreover, the recruitment system that was put in place allowed labour to be mobilized from ever farther and poorer regions, where people would still work for prevailing low wages (Crush et al. 1991).

1897 (First et al.1998). On both sides of the border, control posts were set up to control the migrant movements. In order to have better control of migration streams, a "curadoria" was put in place in Johannesburg, which could legalize the situation of Mozambican clandestine migrants by issuing passports, so that mining companies could engage them. This entity also collected direct taxes for the Mozambican financial administration.

According to the Portuguese Labour Agreement with Transvaal of 1901, named as "Modus Vivendi", and essentially all subsequent agreements, the period of service of workers in the mines was set to 12 months and it could be extended by further 6 months each time (Jeeves 1985). After the time of contract, the workers had to be sent back to Mozambique. These agreements also granted monopolistic permission to recruit labour in Mozambique to the WNLA (the Witwatersrand Native Labour Association) until 1965, then another three recruitment organizations gained permission. Both governments fixed together the salaries that were to be paid to the migrant workers. These were relatively low due to the monopoly of labour recruitment granted to the WNLA by the Chamber of Mines of Transvaal and by the government of Mozambique. Other terms of the agreement included the prohibition to recruit above 22° latitude (just below the frontier of the territory of the Mozambique Company) – except for a short time between 1908 and 1913 (First 1998, p. 21)– so the WNLA only recruited in the three southern districts: Inhambane, Gaza and Lourenco Marques. This limitation was imposed by Mozambique to address the complaints of companies and settlers that had problems to recruit labour for their plantations and could not compete with wages in South Africa. This did not mean that people could not travel to the recruitment stations from the northern districts but effectively probably most migrants also originated from the three southern districts (First 1998). Figure 4 displays the share of migrants per 1,000 inhabitants that left from each of the three southern districts. Inhambane is almost consistently the district that sends most of migrants to Transvaal (between 30 and 80 per thousand inhabitants), followed by Gaza (with around 20 to 50 per thousand inhabitants) and Lourenco Marques (around 11 to 30 migrants per thousand inhabitants).

Figure 4: Migrants to South Africa from Southern districts to Transvaal (per thousand inhabitants)



Source: Statistical yearbooks of Mozambique

The Lusitanian colonial government charged recruitment licences to the recruiting organization, as well as passport issuance fees for every Mozambican employee. Furthermore, a migration tax was collected at the borders to South Africa. However, most importantly, the migrant mining workers paid direct taxes back home. For an effective collection of indigenous taxes from migrants working in the mines of Transvaal, taxes were paid also directly at the Portuguese "curadoria" of Johannesburg. This tax revenue accounted for 5 to 10 per cent of the total direct tax revenue almost throughout the time under study (statistical yearbooks of the colony of Mozambique). The most important advantage for the Portuguese government derived from the stipulation that a large share of the migrant workers' salary was deferred and paid directly in their home country after completing their terms in the mines. <sup>26</sup> The latter assured that the workers returned to Mozambique and spent their earned cash at home, thereby contributing to the monetization of the economy. Given that the districts that sent migrants to Mozambique were the most monetized areas, the largest share of the direct tax revenue of Mozambique was paid by the population of this southern region (see Figure 3).

<sup>&</sup>lt;sup>26</sup> In 1928 a new agreement was ratified by the Union of South Africa and Portugal: South Africa gained greater control over the Transvaal/Lourenco Marques railway line as well as the port of Lourenco Marques and the colonial state of Mozambique assured that the system of deferred pay was made compulsory.

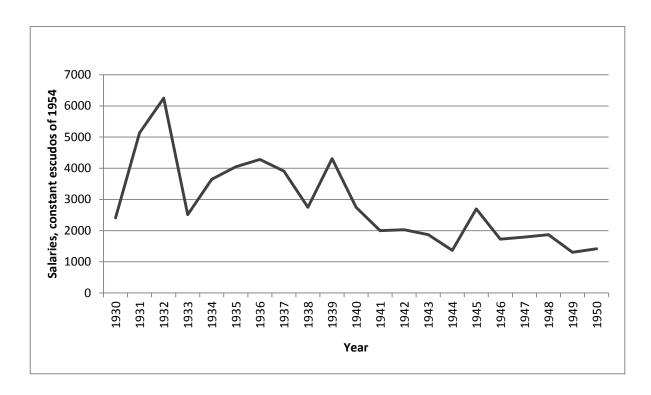
As for the living conditions of migrant labourers in the mines and compounds, a lot has been written in a seminal work by Patrick Harries (1994), but will not be discussed extensively here. Both, during the transportation of migrant labourers from far away regions to Transvaal and within the mines and compounds surrounding them, mortality and diseases were considerable. Due to publicity on the issue of health and nutrition conditions in the mines and relevant discussions in the House of the Commons in Britain, inspection visits were conducted in the mining areas and causes of mortality were analysed thoroughly in medical reports. Consequently, mortality rates declined drastically during the first decades of the 20<sup>th</sup> century: from over 10 per 1,000 to around 1 per 1,000 (see Figure A.2 in the Appendix).

A racial labour system emerged for the first time in the mines (both Kimberley and Transvaal) and set the beginning of the apartheid labour policies that were later applied to all industries in South Africa. Since white miners represented an important share of voters, usually governments pressed mining companies to improve their conditions, mostly at the expense of indigenous miners. The Colour Bar of 1911 (officially Mines and Works Act) granted white people the monopoly on all skilled and thus higher paid jobs. Since indigenous, who acquired more and more skills, were artificially prevented from entering these jobs, competition for skilled jobs was high and they became increasingly expensive. As Figure 5 shows for 1930 to 1950, indigenous migrant miners' wages probably decreased in real terms throughout this time and the rest of the 20<sup>th</sup> century (see also Crush et al. 1991). <sup>27</sup> They only rose considerably again in the 1970s because the migrant labour system mostly broke apart due to the need to attract unskilled labour (Wilson 1976).

Figure 5: Migrants' salaries, constant escudos of 1954

-

<sup>&</sup>lt;sup>27</sup> Our calculation of wages is based on the total amount that migrant labourers received in wages divided by the number of migrants, adjusted by the CPI.



Source: Statistical yearbooks of Mozambique

Nevertheless, compared to other labour systems, especially to the forced labour schemes that existed in different parts of colonial Africa at the same time (such as in Belgian Congo and the concession company areas in Mozambique), conditions of indigenous workers in the Rand gold mines were certainly milder. The wages were also higher in comparison to those paid for unskilled (and mostly forced) wage labour by the state and the private sector in Mozambique. And thus, migrating to the mines was probably the best of alternatives for men living in rural areas, given the obligation to work and the pressure to earn cash wages imposed on the indigenous population through colonial taxation. Although rural households profited from the remittances sent by the migrants, the high emigration streams certainly affected the rural areas of the southern districts of Mozambique that were periodically deprived from the presence of able-bodied young men to help with the harvest (Van den Berg 1987). In Inhambane in the 1940s, between 26 and 31 % of the male active population was away at any time of the year (Newitt 1995, p. 501).

In sum, the colonial rule in Mozambique invested in controlling and promoting a preexistent migratory phenomenon which represented a rich source of revenue, especially of direct taxes.<sup>28</sup>

#### 4.2 Centre: The land of concessions and forced labour

The centre (Zambezia, Manica, Sofala and Tete districts) fits the category of the "Africa of concessions". The *prazo holders* had traditionally dominated this region and this institution was not to be abolished completely after the "effective occupation" by Portugal, but in practice most of the land was leased to commercial companies. Thus, in the first decades of colonisation (1892-1942) the central districts were controlled by the (mostly foreign-owned) companies "Company of Mozambique" (south of the Zambezi, districts of Manica and Sofala) and "Zambezia Company" (north of the Zambezi, districts of Zambezia and Tete). The Zambezia Company effectively did little more than sublease its land to the actual occupiers and rulers of the land, and thus the *prazo* holders managed to survive and keep their lands (Newitt 1995, p. 678). The 25 year concession that the Portuguese Crown granted the Mozambique Company was prolonged to fifty years until 1942. Their contract established that 7.5 per cent of the profit had to be granted to the colonial state (Allina 2012). The concession was not renewed in 1942, because, as the Governor of Manica and Sofala put it: "They did nothing to develop the potential wealth of this entire region, preferring to plunder it and alienate the natives." (Isaacman et al. 1983, p.37).

The centre was governed in the interest of the concession companies. It was important to attract capital for plantations in order to "develop", and therefore it was the main aim of the administration to make labour available to work in these plantations. By introducing the

<sup>&</sup>lt;sup>28</sup> Penvenne (1977) considers forced labour practices in Mozambique as the cause of increasing migration and labour scarcity on national level, since many indigenous people migrated legally or illegally to the neighbouring countries in order to avoid the risk of being sentenced to forced labour in Mozambique. Specifically, she presents *chibalo* (forced labour in southern Mozambique) as a push factor for both internal and external migration in two ways: first, it forced peasants out of the rural areas and second, it diminished the competitive labour opportunities within Mozambique (Penvenne 1977, p.5). Clandestine migration was often the response of Africans, who saw desertion as the only way to resist coercion. On the other hand, Allina (1997 p. 12) refers to forced labour as one of the economic and political consequences of labour shortage, that was created by migration labour from Mozambique to South Africa and Rhodesia: "intense economic competition in Southern Africa led Portugal to rely on forced labour to develop and protect her claims to her colonies". Either forced labour is perceived as a push factor for migration, from the perspective of indigenous people, or as the consequence of labour shortage caused by migration, from the perspective of the colonial rule, it was nevertheless a significant link in the "chain" of taxation-labour-monetisation, especially in the northern and central zones of Mozambique – as is explained in the coming subsections.

indigenous tax and forbidding payment in kind, the indigenous people were forced to seek for wage labour. But apart from this, the so-called *indigenato* institution (which was in force until 1962) forced the indigenous population to work (O' Laughlin 2002).

In the district of Zambezia, after the withdrawal of the Zambezia company in the 1930s, forced cash cropping of cotton was introduced (Isaacman 1992). Internal migration labour was institutionalised to the benefit of both the plantation sector, since cheap labour was guaranteed, and the state, which received various fees for mobilising labour (Head 1978). In the following decades, the 1940s and 1950s, Portuguese capital entered successfully the region: Portugal granted concessions for cotton, tea and sugar, with Sena Sugar Estates being the colony's single largest producer throughout the colonial period.

Increasing labour scarcity in the region led to more repressive labour laws and use of coercive labour (Head 1978). The system of labour taxation was already in use under the *prazo* holders in central Mozambique in pre-colonial times. In the colonial period, under the *indigenato*, all adult males were obliged to work. If they cultivated the land, but did not sell their produce to the market, and they were not alternatively employed in private plantations or infrastructure projects, then they could be caught by the local authorities and sent for forced labour. In early legislation (1909 and 1912) the contract period for forced labour could not exceed the two years (Allina 1997, p. 14). Eventually, labourers had to offer their services for a period of 3-6 months each time and received their full pay at the end of the contract (ibid). In 1942 this system "was formally re-introduced in Mozambique by Circular 818/D-7" issued by the general governor of the colony, stating that *vadios* (vagrants) could expect to be arrested by the administrators and forced to work for a colonial enterprise (Newitt et al. 2008, p.717).

Antonio Enes, the first general governor of Mozambique in the 1890s, grounded effective occupation on what was considered as "Mozambique's greatest strength, her labour resources" (Penvenne 1977, p.1). Portuguese colonial officials used to justify the institutionalisation of coercive labour in Mozambique and elsewhere in Africa on the basis of the following argument: African industriousness had to be stimulated, living standards of indigenous people had to be upgraded and development projects had to be promoted. Forced labour came under the same umbrella regulation as wage labour: According to the so-called *Regulamento do Trabalho Indigena* (1899), those "who do not fulfil voluntarily the obligation to work [...] will be compelled by the authorities to do so" (cited in Duffy 1959, pp.155-156).

As the time passed, however, another argument was used, that of labour shortage. Because of large streams of labour migration to foreign countries throughout the colonial period, demand for labour from the side of both the private and the public sector was always higher than the offered supply. Since neither the colonial state of Mozambique nor the companies based there were able to compete with the wages offered in the mines of South Africa, Portuguese colonial rule established various forms of forced labour.

Coercive labour either in public works or in plantations was remunerated, reaching minimum wage levels in the late colonial period.<sup>29</sup> Penvenne stresses that the annual income of forced labourers would be equivalent to less than half of the annual income of free native labourers: "Ordinary municipal native labourers earned 5,260 Escudos a year, and municipal "shibalo" labour earned less than half that amount, 2,160 Escudos" (Penvenne 1995). Cases of abuse, illegal extension of contracts, underpaid or withheld wages and unjust treatment by local officials were not uncommon (Ross 1925).

#### 4.3 Peasantry in the north

The north (Cabo Delgado, Niassa and Mozambique districts) was mainly a peasant economy organised mostly by indigenous people. During the period of 1891-1929 the northern region was not fully controlled by the colonial state, but the British-owned "Niassa Company" was active in large parts of the territory. The concession company was allowed to force the indigenous population to work on plantation production and on public work projects, as well as to pay hut taxes that kept them indebted. This system enabled the Niassa Company to prevent the population from growing their own crops for sale and compete with the production of the company. However, the results in terms of production surplus and employment proved to be poor in this area and that is why the concession of the Niassa Company was not renewed by the state in 1929.

The area of the north was densely populated, but this potential tax source remained untapped almost throughout the colonial period. The value of the hut tax there was half of the one paid in the south but peasants were not able to pay it. In the 1920s there was progress in

<sup>&</sup>lt;sup>29</sup> In the southern province of Sul do Save workers in agricultural enterprises and in the railway and street construction sector received monthly 150 Escudos and in the industrial sector they received 180 Escudos. In the province of Manica e Sofala the workers' monthly wage ranged between 60 and 130 Escudos, while in central Zambezia it ranged between 60 and 90 Escudos. Finally, in the poorest northern province of Niassa workers received 50-90 Escudos for their services (Inspeccao superior dos negocios indigenas, 1951).

tax revenue collection but it soon stopped, mainly due to the world economic crisis (1929-1931). During the crisis the fiscal tension increased tremendously: the hut tax in debt increased five-fold. However, the "problem of Niassa" existed before the economic crisis (Santos 2013, p.5). The tax burden in the northern districts was high for the indigenous peasants, since they did not produce sufficient surplus to sell to the market and generate income in cash. The difficulty was even higher in the district of Mozambique, since the indigenous tax here was raised "per capita" as opposed to the "hut" tax (Santos 2007 b, p.5).

Irregular food production, insufficient investments in infrastructure and forced labour practices, including delayed payment of wages, were impediments that continued to set the vicious cycle of low tax revenue in motion. According to Isaacman, in the case of forced cotton cultivation, the low output and "the artificially depressed prices set by the state left many rural households impoverished" (1992, p.498). The average income of the cotton producers (one dollar for a whole crop) did not even suffice to pay their taxes (ibid). In the 1930s the local colonial administration responded in two ways: first, the "circunscricao" officials in Niassa started to under-register taxpayers to hide the bad performance in tax raising; second, the law allowed fiscal debts to be paid in kind or in labour (Santos 2007b, p.7).

#### 5. Conclusions

Whereas earlier work on institutional development in Africa had put emphasis on the metropolitan identity to explain the quality of institutions, more recent work on fiscal capacity building has claimed that local conditions mattered more (Frankema and van Waijenburg 2014). We showed that Mozambique consisted of three completely different zones (north, centre and south) in terms of taxation, agricultural production and labour practices, which fit the categorization of Samir Amin into "regions of colonial influence". Different systems of economic activity operated since pre-colonial times in the three geographical zones and these differences were maintained and exploited by the colonial rule, also for the purpose of tax collection. With this study we add the perspective of one of the rather understudied Portuguese colonies to a literature that has been mostly centred on British and French dependencies.

Regression results showed that the south, which operated as a labour reserve for the mines of South Africa, had significantly higher tax capacity than the peasant and concession

economies in the north and centre. The results were robust also after controlling for other determinants of tax capacity. We also constructed a measure of "tax effort" which proved higher in the southern districts as well.

We argued in an analytical discourse that a more developed system of tax collection emerged in the south, where pre-colonial and colonial migration streams to the mines of South Africa contributed to the monetization of the economy and made the extraction of hut taxes more profitable. Colonial policy promoted and intensified labour migration streams to South Africa. The centre and the north were for a large part of their colonial history at least partly administered by concession companies instead of the colonial government, generating a political division within the colony. The central area was completely under the rule of the Company of Mozambique and the Zambezia Company. Those companies were in charge of the administration and collection of taxes during their 50 year-concessions. In the districts which were ruled by concession owning companies the indigenous population had in its majority been recruited for forced (and mostly unpaid) labour for large plantations and companies did not promote a market economy among locals. And thus, here the extraction occurred in terms of forced labour practices rather than in terms of taxes paid in cash. The north, partly ruled by the Niassa Company, contributed least to the direct tax revenue, due to the difficulty to collect indigenous taxes in this area of low productivity peasant agriculture.

Why did Portugal fail to unify the three zones? First, the initial conditions, including geography and climate, as well as the pre-colonial economic and political institutions played a crucial role in shaping different tax and labour patterns. On the top of that, external shocks such as the discovery of gold in South Africa intensified migration streams to the mines and the economic bonds of the southern part of Mozambique to the area of Transvaal, further disconnecting the south from the rest of the territory. Second, Portugal was a weak colonial power, compared to Britain or France. In the early 20<sup>th</sup> century as well as during the economic crisis of the 1930s Portugal faced financial problems and performed poorly in terms of budget balance. In order to limit its deficit and its expenses on colonial administration, it relied on concession companies and local chiefs. In a way, Portuguese colonial rule used a system of indirect rule, following the example of Britain, rather for economic reasons than for ideological purposes.

There are however two points that the Portuguese colonial rule could have altered regarding its fiscal and labour policies in order to reduce socio-economic inequality in the

territory, but it chose not to make that effort. First, from the 1930s onwards Salazar's New State regime in Portugal did not comply with the international labour standards of that period. It did not ratify the ILO agreements before the 1960s and it did not put an end to forced labour schemes, which undoubtedly harmed its legitimisation as colonial power and drove the central and the northern zones of Mozambique to impoverishment. Second, the Portuguese colonial state did not attempt to redistribute the public income in favour of the rural areas and especially of the north of Mozambique, in order to diminish inequality between the zones. It is known both from the literature and quantitative evidence that most of the tax revenue was invested in security, administration and infrastructure almost exclusively of the urban centres and ports, such as Lourenco Marques and Beira (Alexopoulou 2015). This way, Portuguese colonial rule contributed to the further widening of the gap between the north, the centre and the south of Mozambique.

Our research has important implications for the understanding of state formation and fiscal capacity building in Africa, especially given that fiscal systems are highly path dependent.

#### **References**

#### **Primary sources:**

Aguiar (n.d.) Francisco Roque de. Imposto de palhota. Distrito de Lourenco Marques.

Castro, A.A.G. e de Morais, (1948). Economia, Financas e Geografia Economica. Ligeiro esboco historico do sistema de pagamento de imposto na colonia de Angola. Mensário administrativo: publicação de assuntos de interesse ultramarino / direcção dos Serviços de Administração. No 14: 37-40.

Colonia de Mocambique, Reparticao Central de Estatistica Geral (1926-1973). Anuario Estatistico. Lourenco Marques: Imprensa Nacional

De Castelo Branco, Fransisco Xavier Ferrao (1909). Provincia de Mocambique. Relatorios e Informacoes. Annexo ao "Boletim Official". Lourenco Marques: Imprensa Nacional.

Dias Costa, Francisco Felisberto (1898). Regulamento Organico da Guarda Fiscal nos Territorios da Companhia de Mocambique approvado por Decreto de 12 de Maio de 1898, Lisboa: Imprensa Nacional.

Ferreirinha, F. (1947). "Antonio Enes e o seu pensamento colonial". In: Sociedade de Estudos da Colonia de Mocambique. Teses Apresentadas ao 10 Congresso realizado de 8 a 13 de Septembro de 1947 (Vol.1). Lourenco Marques: Tip. Minerva Central.

Inspeccao Superior dos Negocios Indigenas (1951, 9 Agosto). Correspondencia do Governador Geral de Mocambique com o Ministro do Ultramar. Lourenco Marques.. In: Archivo Historico de Mocambique.

Reparticao Central dos Negocios Indigenas (1951). Resposta do Governador Geral de Mocambique ao Questionario Proposto pela Inspeccao Superior de Administracao Colonial. Colonia de Mocambique.. In: Archivo Historico de Mocambique.

Office of the Governor-General of South Africa (1913). "Prohibition of recruitment of natives north of latitude 22o South". Pretoria: National archives of South Africa

Provincia de Mocambique, Direccao dos Servicos de Fazenda e Contabilidade (1934-1973). Contas da Gerencia. Lourenco Marques: Imprensa Nacional

Teixeira, Marco (1982, 17 February). "O trabalho forcado contado pelos camponeses" in: Noticias

#### **Secondary literature:**

Alexopoulou, K. (2015). "Metropolitan vision under question: Colonial policies and fiscal practices in Portuguese Africa (1890s-1970s)". Unpublished Chapter of PhD Thesis.

Allina, E. (1997). "Fallacious Mirrors: Colonial Anxiety and Images of African Labor in Mozambique, ca. 1929". History in Africa, 9-52.

Allina, E. (2012). *Slavery by any other Name: African Life under Company Rule in Colonial Mozambique*. Charlottesville and London: University of Virginia Press.

Amin, S. (1972). "Underdevelopment and dependence in Black Africa-origins and contemporary forms". The Journal of Modern African Studies, 10(04), 503-524.

Besley, T, & Persson, T. (2013). Taxation and Development. In: *Handbook of Public Economics*, Vol. 5, ed. A. Auerbach, R. Chetty, M. Feldstein, E. Saez, pp. 51-110. Amsterdam: Elsevier.

Bowen, M. L. (2000). The state against the peasantry: Rural struggles in colonial and postcolonial Mozambique. University of Virginia Press.

Bush, B. & Maltby, J. (2004). "Taxation in West Africa: Transforming the colonial subject into the "governable person"." Critical Perspectives on Accounting, 15(1), 5-34.

Collier, P. (2005). Understanding Civil War: Africa (Vol. 1). World Bank Publications.

Cogneau, D., & Moradi, A. (2014). "Borders that divide: Education and religion in Ghana and Togo since colonial times". The Journal of Economic History, 74(3), 694-729.

Crush, J., Jeeves, A., & Yudelman, D. (1991). South Africa's Labour Empire: History of Black migrancy to the Gold mines. Oxford: Westview Press.

De Matos, L.C. (1989). "O problema do recrutamento da mao-de-obra local e respectivo codigo do trabalho". In: L de Albuquerque (ed). *Portugal no mundo*. Lisboa: Publicações Alfa, pp.260-269

Duffy, J. (1959). Portuguese Africa. Harvard University Press.

Engerman, S. L., & Sokoloff, K. L. (1997). Factor endowments, institutions, and differential paths of growth among new world economies. In: *How Latin America Fell Behind*, 260-304.

Feger, T., & Asafu-Adjaye, J. (2014). "Tax effort performance in sub-Sahara Africa and the role of colonialism". Economic Modelling, 38, 163-174.

Feinstein, C.H. (2005). An Economic History of South Africa: Conquest, Discrimination, and Development. Cambridge University Press.

First, R., M. Forjaz, & Manghezi, A. (1998). "O mineiro moçambicano: um estudo sobre a exportação de mão de obra de Inhambane". Centro de Estudos Africanos, Universidade Eduardo Mondlane, Maputo.

Foucault, M. (1979). Discipline and Punish. Trans. Alan Sheridan. New York: Vintage.

Frankema, E. (2010). "Raising revenue in the British empire, 1870–1940: how 'extractive' were colonial taxes?" Journal of Global History, 5(03), 447-477.

Frankema, E. (2011). "Colonial taxation and government spending in British Africa, 1880–1940: Maximizing revenue or minimizing effort?". Explorations in Economic History, 48(1), 136-149.

Frankema, E., & Waijenburg, M. V. (2014). "Metropolitan blueprints of colonial taxation? Lessons from fiscal capacity building in British and French Africa, c. 1880-1940". Journal of African History, 55(3), 371-400

Gann, L. H., & Duignan, P. (1975). *Colonialism in Africa, 1870-1960: The economics of colonialism*, edited by P. Duignan and LH Gann. Vol. 4: CUP Archive.

Glaeser, E.L. & Shleifer, A. (2002) "Legal origins". Quarterly Journal of Economics, 117(4), 1193–1229.

Harries, P. (1994). Work, culture, and identity: migrant laborers in Mozambique and South Africa, c. 1860-1910. Pearson Education Ltd.

Havik, P. J., Keese, A., & Santos, M. (2015). *Administration and taxation in former Portuguese Africa*, /: 1900-1945. Newcastle upon Tyne: Cambridge Scholars Publishing.

Head, J. (1978). *Sena Sugar Estates and migrant labour*. London: University of London, Institute of Commonwealth Studies. 15 p.

Herbst, J. (2000). *States and power in Africa: comparative lessons in authority and control*. Princeton University Press.

Hoffman, P.T. (2015). "What do States do? Politics and Economic History". *Journal of Economic History*, 72(2): 303-332.

Isaacman, A. F., & Roberts, R. (1995). *Cotton, colonialism, and social history in Sub-Saharan Africa*. Heinemann.

Isaacman, A. (1992). "Coercion, paternalism and the labour process: the Mozambican cotton regime 1938–1961". *Journal of Southern African Studies*, 18(3), 487-526.

Isaacman, A. F. (1972). *Mozambique: the Africanization of a European institution: the Zambesi prazos, 1750-1902.* University of Wisconsin Press Madison.

Ishemo, S. L. (1989). "Forced Labour, Mussoco (Taxation), Famine and Migration in Lower Zambezia, Mozambique, 1870-1914". In: *Forced labour and Migration: Patterns of Movement within Africa*. New York: Hans Zell Publishers.

Jeeves, A. H. (1985). Migrant labour in South Africa's mining economy: the struggle for the gold mines' labour supply, 1890-1920. McGill-Queen's Press-MQUP.

Kagan-Guthrie, Z. (2011). "Repression and Migration: Forced Labour Exile of Mozambicans to São Tomé, 1948–1955". Journal of Southern African Studies, 37(3), 449-462.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. (1998). "The quality of government." NBER Working Paper 6727 (Cambridge, MA: National Bureau of Economic Research).

Mitchell, B. R. (1975). European historical statistics, 1750-1970. London: Macmillan.

Mitchell, B. R. (1982). International historical statistics: Africa and Asia. New York: New York University Press.

Mkandawire, T. (2010). "On tax efforts and colonial heritage in Africa". The Journal of Development Studies, 46(10), 1647-1669.

Newitt, M., & Tornimbeni, C. (2008). *Transnational Networks and Internal Divisions in Central Mozambique* (No. 4, pp. 707-740). Editions de l'EHESS.

Newitt, M.D. (1995). A History of Mozambique. London: Hurst and Company.

Newitt, M. D. (1969). "The Portuguese on the Zambezi: An historical interpretation of the Prazo system." Journal of African History, 10, 67-85.

O'Laughlin, B. (2002). "Proletarianisation, agency and changing rural livelihoods: forced labour and resistance in colonial Mozambique". Journal of Southern African Studies, 28(3), 511-530.

O'Laughlin, B. (2000). "Class and the customary: the ambiguous legacy of the indigenato in Mozambique". African Affairs, 99(394), 5-42.

Papaioannou, K. J., & Dalrymple-Smith, A. (2015). "Political instability and discontinuity in Nigeria: The pre-colonial past and public goods provision under colonial and post-colonial political orders". The Economics of Peace and Security, 10(1), 40-52.

Penvenne, J. (1995). African workers and colonial racism: Mozambican strategies and struggles in Lourenço Marques, 1877-1962. James Currey.

Penvenne, J. (1979). Attitudes towards Work and Race in Mozambique: Lourenço Marques, 1900–1974. Boston University, African Studies Center: Working Papers.

Penvenne, J. (1977, 15 de Maio). *Shibalo as a factor in labour migration: Sul do Save 1900-1930*. Maputo: Universidade Eduardo Mondlane, Centro de Estudos Africanos, 6 p.

Pitcher, M. A. (1991). "Sowing the seeds of failure: early Portuguese cotton cultivation in Angola and Mozambique, 1820–1926". Journal of Southern African Studies, 17(1), 43-70.

Ross, E. A. (1925). Report on employment of native labor in Portuguese Africa. Abbott Press.

Sanderson, F.E. (1961). "The Development of Labour Migration from Nyasaland, 1891-1914". The Journal of African History, 2(2), 259-271.

Santos, M. M. (2007a). "Imposto e algodao: o caso de Mocambique (1926-1945)". In: Centro de Estudos Africanos da Universidade do Porto (Org.) *Trabalho Forçado Africano. Articulações com o poder político*. Coleção Estudos Africanos. Porto: Campo das Letras - Editores, S.A.

Santos, M. M. (2007b). "An obsessive idea-Native taxation in northern Mozambique (1926-1945)". WP/CEAUP

Santos, M. M., & Guedes, A. (2014). "O imposto camponês no Norte de Moçambique (1929-1939)-um cultivo forçado, factor de crescimento?".

Stotsky, J. G., & WoldeMariam, A. (1997). "Tax effort in sub-Saharan Africa." IMF Working Paper, 1-57.

Tilly, C. (1990). Coercion, Capital and European States, AD 990-1990. Oxford: Blackwell.

Van den Berg, J. (1987). "A peasant form of production: wage-dependent agriculture in southern Mozambique". Canadian Journal of African Studies/La Revue canadienne des études africaines, 21(3), 375-389.

Wilson, F. (1976). "International migration in southern Africa". International Migration Review, 451-488.

Young, C. (1994). The African colonial state in comparative perspective, Yale University Press.

### Appendix

Figure A.1. Actual versus predicted direct taxes per head (ln), in constant escudos of 1954

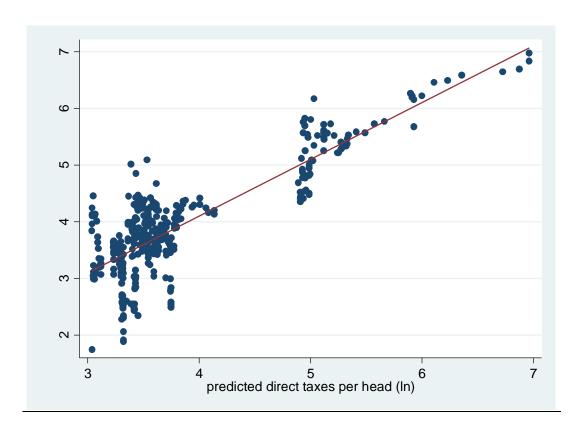
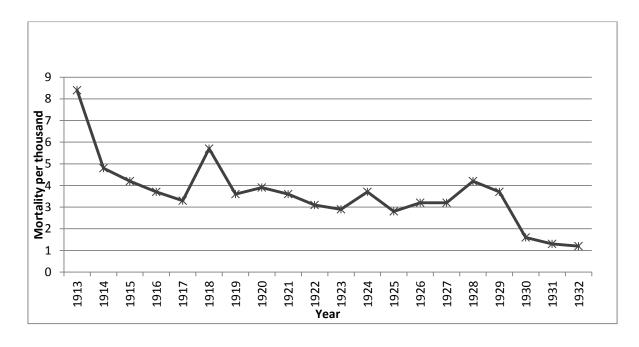


Figure A.2. Mortality rates in the mines in South Africa (per thousand)



Source: Statistical yearbooks of Mozambique

Table A.1: Covariance Matrix

|              | Tax rate | Population dens | Urbani-<br>zation | Agric.<br>share | Dependency ratio | Port   | White share | South  |
|--------------|----------|-----------------|-------------------|-----------------|------------------|--------|-------------|--------|
| Tax rate     | 1.0000   |                 |                   |                 |                  |        |             |        |
| Pop. density | 0.7486   | 1.0000          |                   |                 |                  |        |             |        |
| Urbanization | 0.8175   | 0.5790          | 1.0000            |                 |                  |        |             |        |
| Agric. Share | -0.6945  | -0.4083         | -0.8692           | 1.0000          |                  |        |             |        |
| Dep. ratio   | -0.3807  | -0.5183         | -0.5985           | 0.4087          | 1.0000           |        |             |        |
| Port         | 0.7084   | 0.3859          | 0.8393            | -0.7343         | -0.4092          | 1.0000 |             |        |
| White share  | 0.8204   | 0.5983          | 0.9950            | -0.8608         | -0.5825          | 0.8172 | 1.0000      |        |
| South        | 0.3981   | 0.3153          | 0.4918            | -0.6734         | -0.4943          | 0.2481 | 0.4820      | 1.0000 |