

COLONIAL TRADE AND EXTRACTIVE INSTITUTIONS IN BRITISH AND FRENCH AFRICA

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PRELIMINARY: PLEASE DO NOT CITE

Comparing British and French styles of colonization, the literature has often assumed that the British employed less extractive policies. However, given that colonial extraction is particularly hard to quantify, this claim has been difficult to test. To address this problem, in this paper I use new colonial trade data and measure the extent of extraction under the two colonial powers as the difference between prices to producers in Africa and in the world markets. The evidence counter the assumption that British colonization was always less extractive: if extraction was lower in British East Africa, West African colonies were subject to substantial and similar extraction both under the British and under the French.

JEL Classification: N17; O43

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I INTRODUCTION

Colonial trade has been emphasized as one of the main features of colonial extraction. It has been argued that, in French Africa, trade monopsonies and forced labor were introduced as a strategy to reduce prices to agricultural producers and to increase profit margins of European trading companies. In contrast, the literature has often assumed that the British colonizers employed less extractive policies, by relying more on free trade and free labor.

However, since colonial extraction is hard to quantify, this claim has been hard to systematically test. In this paper, I argue that trade statistics offer the opportunity to overcome this problem and to evaluate the extent of extraction under each colonial power. The intuition stems from the fact that if the colonizers used non-extractive policies, then the prices to producers in Africa should be equal to competitive prices (defined as the difference between world market prices and trading costs). We can thus measure the level of colonial extraction as the gap between actual and competitive prices in Africa. Since world market prices are common, as long as trading costs did not systematically differ between French and British colonies, it is possible to compare the extent of extraction under the two colonizers by comparing export prices in Africa.

To do so, first I collect a new dataset of prices in Africa for the main agricultural commodities exported from twenty-two British and French colonies during between 1903 and 1939. The data come from customs statistics, reported in *Colonial Blue Books*, statistical reports of the Ministry of the Colonies, and *Bulletins Economiques* of the different colonies. Then, I test the hypothesis that the British colonizers employed less extractive policies by looking whether prices were higher in the British colonies with respect to the French.

The results show that the British colonizers did not always pay higher prices to producers in Africa. On one hand, producers of cotton, groundnut, oil palm, and rubber enjoyed higher prices under British rule, while on the other hand producers of cocoa and coffee were paid similar or even lower prices than under French authority. Results also show that important differences existed among regions. Prices in British East Africa were usually larger than in

the French colonies. However, in West Africa producers were paid similar prices both in British and French colonies.¹

How did these prices compare to their competitive analogues? In the case of French colonies, African prices were lower than competitive prices, suggesting the presence of colonial extraction. In the case of British colonies the situation was more heterogeneous. Prices in East Africa were close to world market levels, suggesting that colonial extraction, if existent, was very low. In British West Africa, however, prices were much more similar to the ones in the French colonies and we cannot exclude the presence of substantial extraction.

The evidence suggests that the level of prices depended more on the kind of the exported commodities and the location of production than on the identity of the colonial power. To interpret these findings, I show how the choice of producer prices varied according to the cost of implementing extractive institutions. In West Africa, the longer history of trade and higher level of commercialization reduced the operational costs of monopsonistic trading companies. At the same time, most of agricultural production was based on small African farmers, with little political power and ability to oppose extractive policies. On the other hand, in East Africa production was often controlled by European settlers, who had a much larger political influence before the colonial and metropolitan government. It is reasonable thus to suppose that the costs of enforcing extractive institutions were higher in East Africa and that this could explain the difference in colonial extraction among regions.

The paper is structured as follows. Section II provides the historical context to analyze trade and extractive institutions in British and French Africa. The following three sections constitute the main contribution of the paper: section III describes the construction of the price dataset, section IV compares prices under the two colonial powers, and section V interprets the main findings. Finally, section VI offers concluding remarks and suggests future research directions.

¹In Western Africa, coffee prices were even 25% lower in the British than in the French colonies.

II COLONIAL TRADE UNDER THE FRENCH AND THE BRITISH

The literature has often argued that the identity of the colonial power affected trade relationships between Europe and Africa. According to this view, the British were more favorable to free trade and did not try to control African prices with monopsonies or coercive institutions. It has been claimed that the longer history as colonial power taught Britain the ineffectiveness of excessive colonial exploitation (Brett, 1973). The French, on the other hand, made great use of their political power in order to establish trade monopsonies and acquire African goods at prices lower than in the world markets. In addition, they also employed compulsory cultivations and forced labor more often than the British (Duignan and Gahan, 1975).

In West Africa, most of agricultural production was in the hands of African farmers (Aromolaran and Aromolaran, 1966; Rodney, 1972). The British government generally discouraged the establishment of European plantations (Owolabi, 1972). Developing an economy based on settlers required in fact huge administrative and economic support, while peasant agriculture was able to generate exports with minimal investments (Brett, 1973). Moreover, the high involvement of African farmers in the market economy since the early colonial period made it a better choice to favor local farmers instead of new settlers (Austin, 2010).

These forces played a minor role in East Africa and production modes were there more heterogeneous. Agriculture was based on African farmers and large plantations in Tanganyika, on African farmers in Uganda, and on on European settlers in Kenya (Brett, 1973). Rhodesia and Nyasaland were also characterized by the presence of settlers (Thompson and Woodruff, 1954).²

Whether production was organized through small African farmers, settlers, or plantation companies, trade revolved around the activity of European trading firms which exported goods from Africa to Europe. In West Africa, crops were usually bought from African farmers

²The colonial government helped the settlers in several ways. coercive institutions such as land alienation and high poll taxes were used to draw Africans into the wage labor markets. In addition, it also helped directly with the recruitment of forced labor (Kenya and Tanzania during the Great Depression) (Rodney, 1972).

by small traders, who transported the goods to a marketing place. The trading company acquired then these goods, moved them to the port, and shipped to Europe (Pedler, 1956). The difference between the price in Africa and in Europe constituted the gain of the trading companies. Of these profits, only a small part was used for investments and infrastructure in Africa, while the majority was instead transferred to Europe (Hopkins, 1973; Owolabi, 1972).

Between 1890 and 1920, a number of such companies started to export from the African coast. In general, the French colonial government did not commit to free trade and used protectionist policies which favored the French exporting firms (Hopkins, 1973). Some monopolies were formally established, such as in the case of Equatorial Africa, while others came into being *de facto* as a consequence of economic crises and protectionistic policies, such as in the case of West Africa (Coquery-Vidrovitch, 1972; Manning, 1998; Suret-Canale, 1971; Thompson and Adloff, 1957). The British relied less on these policies, but did not oppose interventions when necessary. During the world wars and the Great Depression, also Britain imposed tariffs and restrictions to free trade (Duignan and Gahan, 1975; Rodney, 1972).³

In West Africa, over time smaller business interests lost market share and concentration increased. By 1930, three companies (the French *Compagnie Francaise de l'Afrique Occidentale* and *Société Commerciale de l'Ouest Africain*, and the British *United Africa Company - UAC*, owned by Unilever) controlled between 2/3 and 3/4 of all West African trade (Hopkins, 1973). The UAC was the bigger of the three, controlling about 50% of trade in the 1930s, and was active also in East Africa (Hopkins, 1973; Rodney, 1972). At the beginning of WW2, their share of total trade increased further, reaching up to 90% for some commodities (Suret-Canale, 1971).

In a similar way, also in East Africa the trading companies tried to organize production and commerce around their interests. In Uganda, for example, large companies, worried about excessive prices to African cotton farmers, were able to lobby the colonial government

³The creation of monopsonistic marketing boards after WW2 is another example to control prices. Despite their formal objective was to insure African producers against fluctuations of world market prices, most of the gains were captured by the colonial government and the trading companies (Rodney, 1972).

and establish a controlled marketing systems based on an oligopoly of firms. Similar economic structures were also implemented on other commodities (coffee, groundnuts) and in other colonies (Tanganyika) (Brett, 1973). Nevertheless, trading firms tended to be smaller in East Africa (Rodney, 1972) and their monopolistic power was more limited than in the Western colonies (Duignan and Gahan, 1975).

The colonial administration generally supported the activity of trading companies, by interfering with labor markets and implementing coercive institutions (Hopkins, 1973). The relative poverty of French territories made the use of coercion a more attractive options than in the British colonies (Austin, 2010). Compulsory gathering and cultivation of crops were introduced by the French in both Equatorial (rubber at the time of big concessionary companies and cotton since 1920s) and in West Africa (cocoa in the early colonial period). The British did not use compulsory crops at the same extent as the French, but in British East Africa farmers were required to cultivate part of their land with cotton and groundnuts. In these cases, the line between administrative pressure and open coercion was not easy to perceive. In addition, both colonizers also used indirect methods such as poll taxes. Introduced to raise the revenue of colonial governments, they also served the function of forcing Africans to produce cash crops in order to fulfill their fiscal obligations.

Overall, monopsonies and labor coercion allowed the colonizers to pay African producers prices which were lower than those in the world markets. Hopkins (1973) mentions how for some commodities the profit of trading companies were larger than competitive profits and that, whenever competition between exporters increased (such as in the case of groundnuts in Nigeria during the 1930s), African producers saw a rise in price. In addition, recent trade data on the French colonies show that there was a gap between prices in Africa and in the world market, which cannot be explained by trading costs (Tadei, 2015).

Given the formally different plans with which the two colonial powers organized trade and production, it is important to ask what effect these policies had on the ground. Were British policies effectively less extractive? Did African producers who lived in the British

colonies received higher prices than those living under the French?

III DATA

To answer these questions, I collected data on export prices of agricultural commodities in British and French colonies. The sample includes each year ending with 3, 6, or 9 between 1903 and 1939.⁴ Limiting the analysis to the period before WW2 provides the opportunity to examine the differences between British and French in the golden era of colonial rule, after the establishment of colonial systems and before the changes in policies which were brought about by the coming of independence.

In the present analysis, I consider seven main commodities: groundnuts, palm kernels, palm oil, cotton, cocoa, coffee, and rubber. British colonies in East Africa also exported tea and tobacco, but since these commodities were not produced in the French colonies, they were excluded for the purpose of a comparative analysis. The dataset includes prices for these commodities in twenty-two African colonies: five colonies in French Equatorial Africa (Cameroon, Congo, Gabon, Ubangi-Shari, and Chad), seven in French West Africa (Dahomey, Guinea, Haut-Senegal, Ivory Coast, Niger, Senegal, and Togo), four in British West Africa (Gambia, Gold Coast, Nigeria, and Sierra Leone), and six in British East Africa (Kenya, Northern Rhodesia, Nyasaland, Southern Rhodesia, Tanganyika, and Uganda). Overall, the dataset provides price information for 818 colony/commodity/years. Table I reports summary statistics, divided by commodity.

The source for price data are colonial yearly customs statistics, which reported the total value and the total quantity of exports by commodity. These statistics were registered at the local customs offices and then aggregated at the colony level. Statement of quantities and values were based on declaration of exporters, checked by custom offices. From these information, I computed prices at the African ports as unit values. I included only exports of goods produced within each colony, excluding re-exports. For British Africa, customs

⁴For the French colonies, I do not have data for 1919 and I use instead 1920.

statistics were reported in yearly *Blue Books* of the different colonies. For French Africa, data came from several statistical publications including statistical reports of the Ministry of Colonies, *Bulletins Economiques* of the various colonies, and *Annuaire Statiques*.

British statistics almost always reported information at the colony level (the only exception being the period in which the customs offices of Kenya and Uganda were pooled together), while French statistics sometimes included data aggregated in larger territorial units. In this case, I simply assigned the commodity price from the larger territorial unit to all colonies in the territory which produced that specific commodity. In addition, since the names of the French territorial units changed over time and in the different sources, I had to track the variation in the colonies' names.

To ensure comparability, I converted all prices in British pounds per ton. This involved dealing with a number of different measurement units. British quantities were reported in long tons, bushels, centals/imperial hundredweights, gallons, or pounds, while values in pounds, shillings, and pence. French quantities were reported in tons, kg, or liters, while values in either French francs or francs CFA (franc des Colonies françaises d'Afrique). Exchange rates between franc and pound are from Officer (2013).⁵

To compare British and French prices, we need to make sure that port values include the same costs. This happens not to be the case as British prices included customs duties, while French prices did not. To solve this problem, I collected information on British export taxes in each colony and commodity by using *Blue Books* and I subtracted them to port prices. Exports taxes were levied only on certain commodities and years, and more often in West Africa than in East Africa. They could be fixed or *ad valorem* and ranged from 2% to 37% of the value of the goods, with an average of 8%. Nevertheless, since in many colonies and years, commodities were not subject to export taxes, the average impact of export duties on British prices was less than 1%.

Before moving to the analysis, it is important to point out how port prices were related to

⁵Since the aim of the paper is to compare prices between British and French colonies and not to evaluate differences over time, we do not need to deflate prices and data are in current pounds.

prices to producers in Africa. Prices at the port were an upper-bound of producer prices. The reported values included in fact the price paid to African producers together with processing, inland transport, and port costs. Nevertheless, it is likely that these costs, for a given commodity, were on average similar between British and French colonies. For this reason, differences in port prices under the two colonial powers can be interpreted as differences in producer prices.⁶

IV EMPIRICAL STRATEGY AND RESULTS

IV.1 Comparing British and French Prices

To start analyzing the differences between French and British colonizers, we can run a simple regression of (log) price in Africa on a British colony dummy. Pooling together all commodities, colonies, and years, prices in British Africa were about 44% higher than in French Africa.⁷ Nevertheless, this overall result hides important differences in the price trajectories. Figure I shows the average (log) price in British and French colonies over time. Until about 1920, British prices were not significantly different than French prices. The gap between the two formed and increased during the 1920s, it then decreased in the early 1930s to increase again toward the end of the period. It is interesting to notice that whenever the gap increased, it is because British prices stayed constant, while French prices decreased.

Did the higher British prices depend only on the fact that the British colonies produced higher-valued crops? Table I shows that there were large differences in the prices of commodities. Peanuts and palm kernels were sold on average at 11 £ per ton, palm oil at 19 £, cocoa at 35 £, one ton of coffee or cotton was valued around 60 £, while rubber reached over 130 £ per ton. To check this, table II regresses (log) African prices on the British colony dummy, by commodity. Two facts emerge from the table. First, the higher prices in the British colonies did not depend on the higher value of commodities produced, as British prices were higher

⁶Using port prices as a proxy for producer prices is not uncommon in the historical literature (Pedler, 1956).

⁷coeff.=0.44***, st.err=0.12, R-sq=0.05, N=818.

in both low-value commodities such as groundnuts and oil palm and high-value commodities such as rubber. Second, it is not true that prices in the British colonies were always larger: for coffee and cocoa, there is no significant gap between British and French prices.

It is clear that the the relationship between French and British prices was not constant. Figure II confirms this idea, by showing actual French and British prices by commodity over time. To formally test this claim, table III explores how this relationship changed over time, within each commodity. To so so, it presents separate commodity-regressions for three periods: early colonial era (before 1919), the 1920s, decade of full development of the colonial system, and the 1930s when the African colonies were hit by the Great Depression. The general patterns are confirmed: oil palm produces, groundnuts, cotton, and rubber had larger prices in British Africa, while the prices for cocoa and coffee were usually similar among British and French colonies. There are however some exceptions. The difference in prices is not statistically significant for rubber in the early colonial period, for cotton in the 1920s, and for palm produces in the 1930s. On the other hand, the British colonies had larger coffee prices in the 1920s, while cocoa prices were actually larger in the French colonies at the beginning of the period.

The gap between French and British prices varied among the different commodities and periods. It is interesting to explore whether these differences were driven by specific regions. The map of figure III illustrates how we can divide the colonies in four main regions: British East, British West, French West, and French Equatorial Africa. Figure IV shows the average African price for all commodities over time in in each of these regions. One fact clearly emerges from the picture: prices in British East Africa were larger than in the other three regions, while prices between British Western colonies were not too dissimilar from French Africa. Figure V depicts average prices in the four regions divided by commodity.

To formally explore this result, I run for each commodity the following regression

$$\log(\text{price}_i) = \alpha + \beta_1 \text{British}_i + \beta_2 \text{British}_i * \text{West}_i + \beta_3 \text{West}_i + \epsilon_i \quad (1)$$

where *British* is the British colony-dummy and *West* is an indicator for Western Africa. This approach allows us to check for differences in prices among the four region by testing for differences among the regression coefficients.

Table IV reports the results. We can check whether prices in British East Africa were larger than prices in French Equatorial Africa by looking at β_1 . For all commodities, the coefficient is positive and significant: British East prices were about 40 to 70% larger than French Equatorial prices.⁸ Did this difference exist also between British East and French West Africa? We can check this by looking at the difference between β_1 and β_3 . The results are reported in the second row of the bottom panel. Compared to French Western colonies, East African prices were still larger (30-50%), but the difference is not statistically significant for coffee and rubber.

If we turn now to British West Africa, the picture changes. We can compare British West and French Equatorial prices by looking at $\beta_1 + \beta_2 + \beta_3$ and we can compare British West and French West prices by observing $\beta_1 + \beta_2$. The results are shown in the third and fourth rows. British prices were larger only for oil palm produces and rubber compared to French Equatorial Africa (20-40%) and only for oil palm produces compared to Western Africa (20%). For all other commodities, the difference between British and French is not statistically significant. In Western Africa, coffee prices were even 25% lower in the British than in the French colonies.

In addition, there were some differences in prices across regions within the same colonial power. To check for differences between British West and East African prices we can look at $\beta_2 + \beta_3$ (fifth row), while we can test for differences between French West and Equatorial Africa by looking at β_3 (sixth row). Among British colonies, prices were usually larger in the East than in the West, but the difference is statistically significant only for cocoa and groundnuts. French West prices were usually larger than French Equatorial prices, but the difference is statistically significant only for coffee and palm kernels.

⁸Since British East Africa does not produce oil palms, we cannot test the hypothesis on these crops.

IV.2 Price Gaps and Colonial Extraction

It is interesting to compare prices in Africa to world market prices. Data on French trade have shown that, in the case of the French colonies, there existed large gaps between African and world prices which cannot be attributed to trading costs. Colonial extractive institutions, such as trade monopsonies and coercive labor institutions, allowed the colonizers to reduce prices to African producers, increasing the gap between African and world prices and generating big profits for the colonial trading companies (Tadei, 2015).

The analysis in the previous section suggests that British prices were on average larger than French prices. Was this difference sufficient to close the gap between prices in Africa and in the world markets? Were British institutions less extractive?

To answer this question, we can perform a simple back-of-the-envelope calculation. Prices in French Africa as a percentage of prices in Europe varied from 60% for groundnuts and rubber, to 70% for cotton and palm produces, to 80% for cocoa and coffee. We can get a sense of the extractiveness of colonial trade by comparing actual African prices to competitive prices. The idea is that if the colonizers did not employ extractive institutions by using free trade and free labor, then the price to producers in Africa should be equal to the difference between world prices and trading costs. Since trading costs were on average about 10% of the price in Europe, we can argue that in the French colonies extraction was large on groundnuts, palm produces, rubber, and cotton, while it existed but was more limited on coffee and cocoa.

British East Africa had prices which were 40-50% larger with respect to French Africa. This suggests that the level of extraction in British East Africa, if existent, was very low.⁹ The situation is different if we look at British West Africa. There, prices were more similar to the ones that we observe in the French colonies. The exception of higher prices for rubber and palm produces (+30%) is not sufficient to close the gaps with world markets. Thus, we cannot exclude some limited extraction on oil palm rubber, coffee, and cocoa, and more substantial extraction on groundnuts and cotton.

⁹The evidence suggests a limited extraction only on rubber.

V DISCUSSION

The results suggest that it is not true that the British always used less extractive policies. If extraction was very low in East Africa, West African commodities were subject to substantial extraction both under the British and under the French. Explanations of colonial extraction which emphasize the identity of the colonizer cannot take into account the observed patterns in price data. British West Africa was too similar to the French colonies and too different from British East Africa for simple cultural explanations to work.

To explain the observed patterns, it is necessary to think about the benefits and costs of establishing monopsonies and extractive institutions from the point of view of the trading companies. The benefits depend on the profitability of the exported commodity. If a colony produces a highly-valuable commodity, the company will have larger incentives to establish institutions to extract a bigger share of profit from that commodity/colony.

The costs are related to the enforcement of extractive institutions. Monopsonies were harder to establish if the trading companies did not have a long history of trade in the region. As West Africa had a much longer history of trade with Europe and a higher level of commercialization, it is plausible to think that these costs were larger in the Western than in the Eastern colonies. Frankema and van Waijenburg (2012) acknowledge that market forces shaped African production towards the export markets much earlier in West Africa than in East Africa. Rodney (1972) mentions that the volume of trade from East Africa was relatively small until WW2. As a consequence, trading firms were bigger in West Africa and a few of them controlled a larger proportion of trade (Duignan and Gahan, 1975; Rodney, 1972).

Another cost is related to the opposition from producers in Africa. Producers will be paid lower prices if extractive institutions are established and have an incentive to oppose such type of organizations. The effectiveness of this opposition closely depends on the producers' political influence before the colonial and metropolitan government. Producers in Africa could be either European settlers or African peasants. It is clear that the political influence

of the latter group was much more limited than that of the former. It is thus reasonable to argue that the costs of enforcing extractive institutions were higher when production was controlled by settlers and lower when it was based on African farmers.

There are examples of African farmers trying to oppose the interests of trading firms, such as in the 1937-38 strike of cocoa producers in Ivory Coast (Aromolaran and Aromolaran, 1966). These attempts, however, were usually more successful when organized by settlers. In Kenya, for example, they were able to get the colonial government to approve policies which favored the internal instead that the export markets, against the interests of British firms and trading companies. On the other hand, the trading firms knew that they could obtain lower prices if the production was based on African farmers and did not back up the settlers when they lobbied for policies which transformed Africans peasant in wage laborers. More often than not, the commercial interests sided with African farmers against the interests of settlers (Brett, 1973). In French West Africa, the trading companies, worried about the potential loss of profit, opposed the creation of European plantations and lobbied to maintain agricultural production in the hands of African farmers (Hopkins, 1973).

Since extractive institutions are costly, the trading companies will try to establish them only if the benefits of doing so are large enough. In East Africa colonies and for settler-produced commodities the costs of extraction are large. Extractive institutions will be then established only if the value of the exported commodity is sufficiently high. On the other hand, in West Africa and for African-produced commodities the costs of extraction are low. Extractive institutions will be then established even on low-valued commodities. Indeed, there was colonial extraction on all West African commodities, both British and French, while in East Africa only highly-valued commodity, such as rubber, were subjected to extraction.

The model not only explains variations in colonial extraction, but also most of the relationships of commodity prices among regions. Incentives to reduce prices will be larger if the commodity is produced in West Africa, if it is produced by African farmers, and if its value is high. Table V summarizes the prediction of the model. We expect high

prices for settler-produced commodities in East Africa with low value, medium for settler-produced commodities in West Africa, African-produced commodities in East Africa, and settler-produced commodities in East Africa with high value, and low for African-produced commodities in West Africa.

Cocoa, groundnuts, and cotton were low-value commodities produced mostly by African farmers both in East and in West Africa (Frankema and van Waijenburg, 2012; Thompson and Woodruff, 1954; Wolff, 1974). As predicted by the model, prices were larger in East Africa, while they were equally low in both British and French West Africa. Oil palms were a low-value production in the hands of African farmers in both French and British West Africa (Frankema and van Waijenburg, 2012). This is the only case that escapes the logic of the model, as we observe larger prices in the British colonies.

Rubber was a high-value commodity produced by settlers in British East Africa and French West Africa and by African farmers in British West Africa (Frankema and van Waijenburg, 2012; Suret-Canale, 1971; Wolff, 1974). We would then expect prices to be low in British West Africa and medium in British East and in French West Africa. Prices in these two regions were indeed similar and higher than in British West Africa, even if the difference is not statistically significant. Coffee was a high-value commodity produced mostly by Africans in British West Africa and by settlers in French West Africa and in British East Africa (Suret-Canale, 1971; Thompson and Adloff, 1957; Wolff, 1974). From the model we expect similar prices in British East and French West Africa and lower prices in British West Africa, and this is what we observe in the data.

VI CONCLUSIONS

Comparing the different colonial powers in Africa, the literature has often assumed that colonization under the British was less extractive than under the French. However, the difficulties involved with measuring colonial extraction have made this claim difficult to test. In this paper, I proposed a solution by looking at colonial trade: by using a new dataset

of African prices, I measured the extent of extraction under the two colonial powers as the difference between prices to producers in Africa and in the world markets. As long as trading costs were not systematically different between French and British colonizers, we can compare the level of extraction by comparing export prices in British and French colonies.

The results show that prices were larger in British East Africa, but that producers in British West Africa were paid similar prices as in the French colonies. Overall, the evidence counter the assumption that the British always employed less extractive policies: if extraction was low in British East Africa, West African colonies were subject to substantial extraction both under the British and under the French. The extent of colonial extraction depended much more on local conditions in Africa than on the identity of the colonial power.

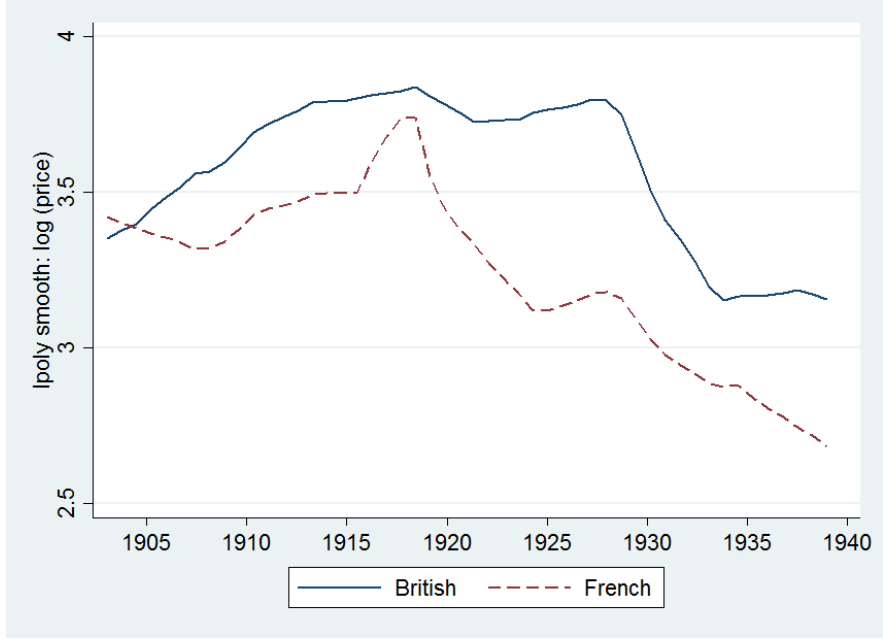
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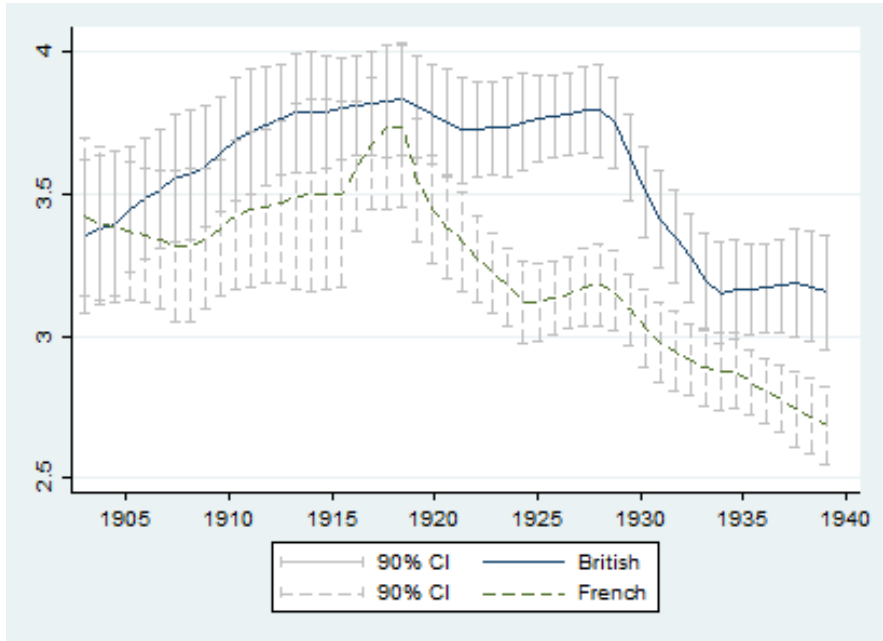
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A FIGURES AND TABLES



(A) Average Prices



(B) Average Prices, 90% Confidence Intervals

FIGURE I
Average Prices in British and French Colonies

The figure reports the trend (local mean smoothing) of (log) prices in Africa in British and French colonies for all commodities. Ninety per cent confidence intervals are reported in the bottom panel.

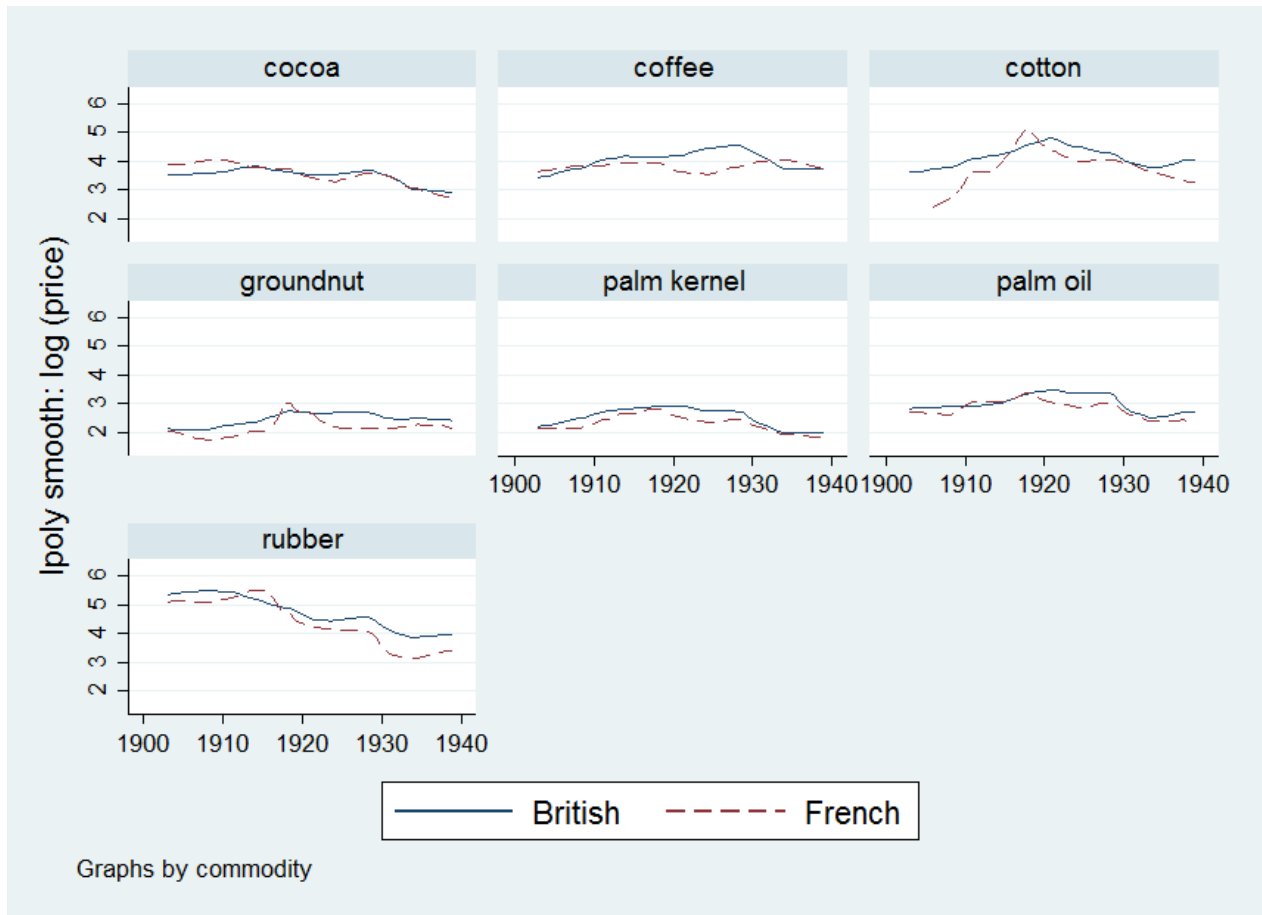


FIGURE II
Average Prices in British and French Colonies, by Commodity

The figure reports the trend (local mean smoothing) of (log) prices in Africa in British and French colonies, by commodity.

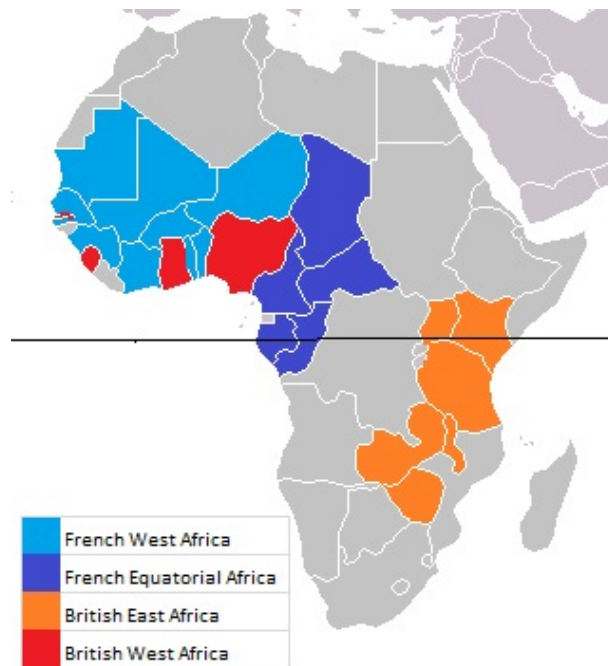


FIGURE III
French and British Africa

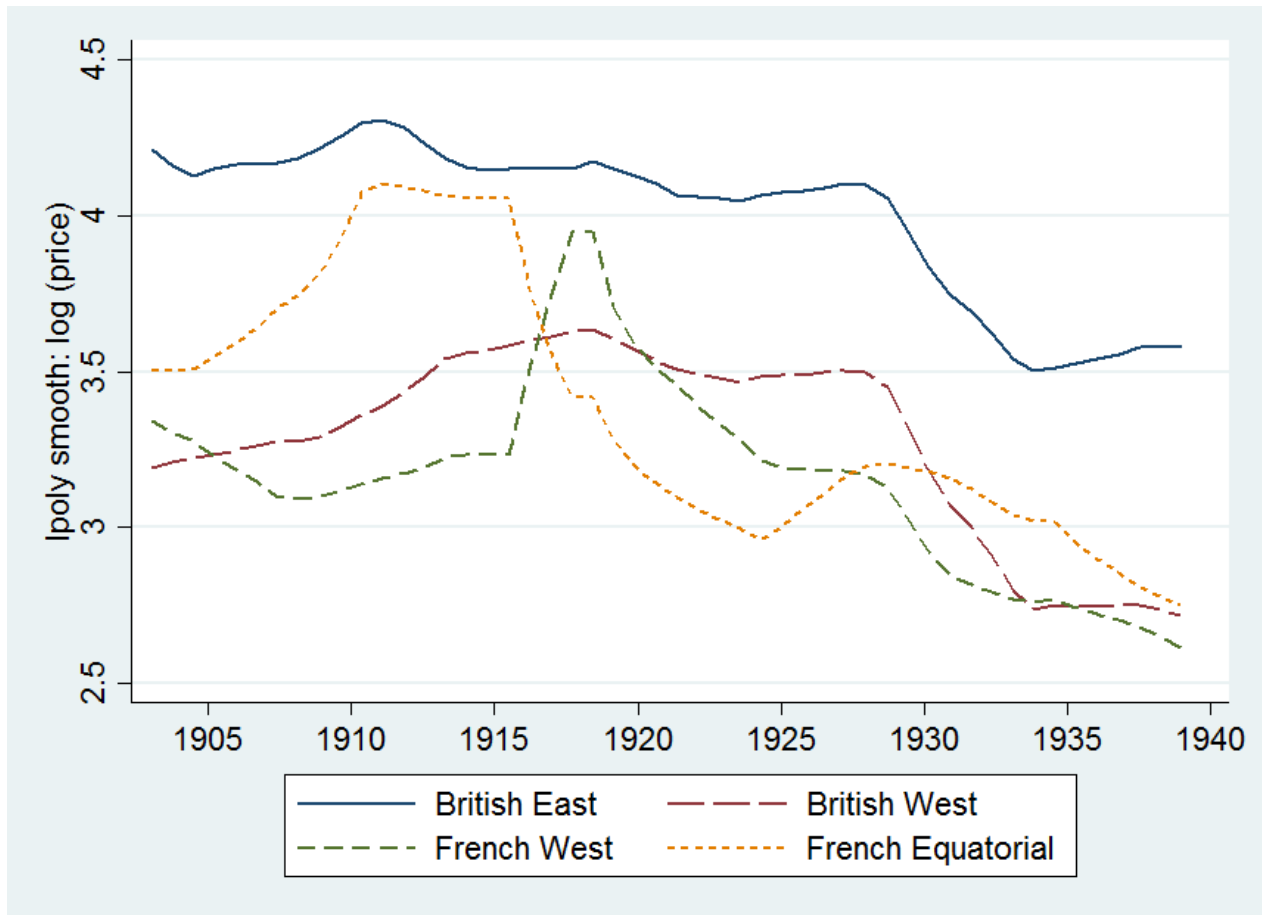


FIGURE IV
Average Prices in British and French Colonies, by Region

The figure reports the trend (local mean smoothing) of (log) prices in Africa in British and French colonies, by region.

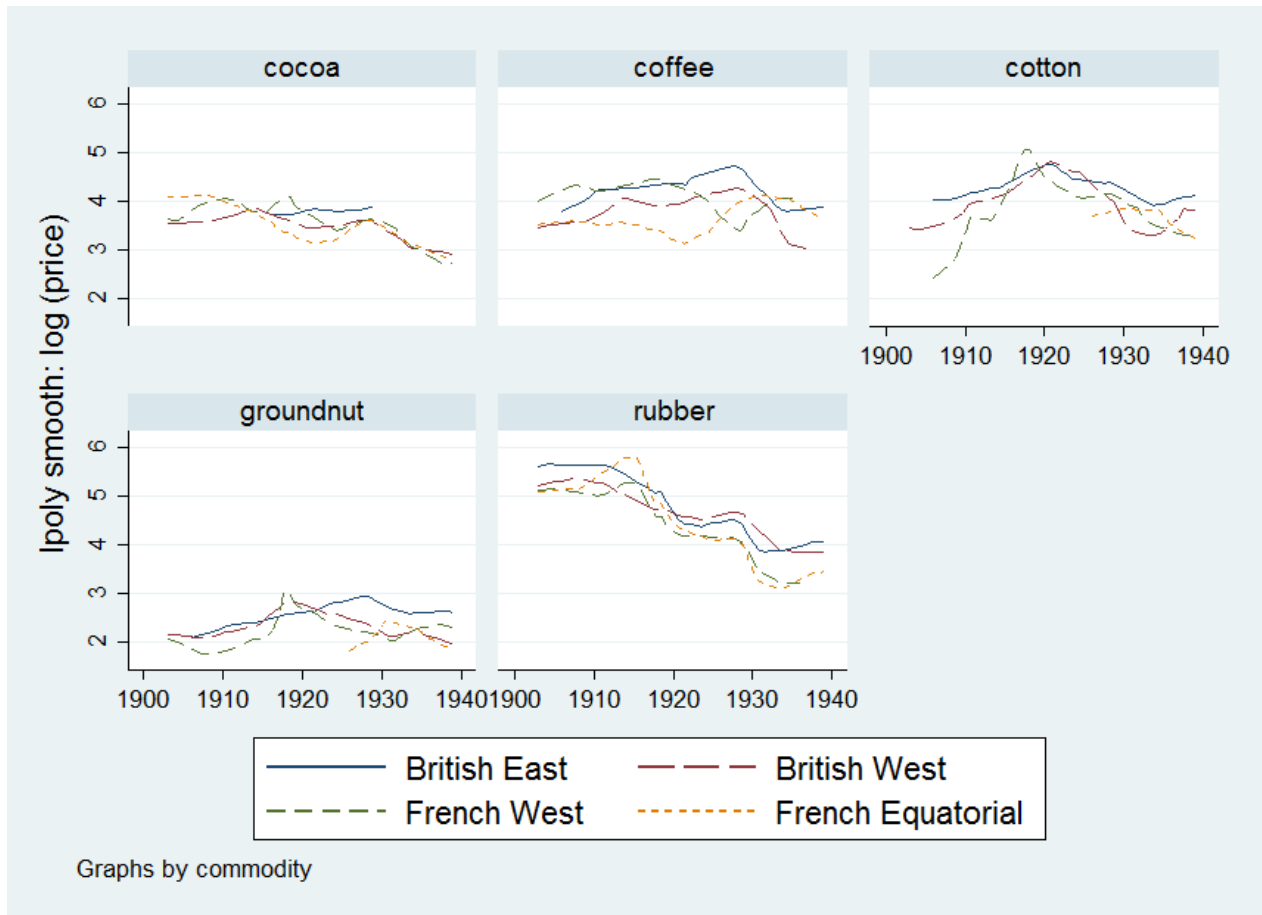


FIGURE V
Average Prices in British and French Colonies, by Region and by Commodity

The figure reports the trend (local mean smoothing) of (log) prices in Africa in British and French colonies, by region and by commodity.

TABLE I
Summary Statistics

	Obs	Mean	Std. Dev.	Min	Max
cocoa	85	34.8	12.6	15.1	79.2
coffee	119	63.6	14.5	46.4	253.6
cotton	111	60.1	5.6	34.2	199.8
groundnut	142	11.4	2.4	5.6	36.8
palm kernel	126	11.2	4.7	5.0	27.5
palm oil	100	18.8	6.8	8.1	45.5
rubber	135	130.3	13.5	89.3	432.3

TABLE II
Colonial Power and Prices in Africa, by Commodity

	British	st. err.	R-sq	N
cocoa	0.08	0.09	0.01	85
coffee	0.25	0.19	0.05	119
cotton	0.42***	0.14	0.11	111
groundnut	0.32***	0.10	0.10	142
palm kernel	0.28***	0.07	0.10	126
palm oil	0.19**	0.07	0.05	100
rubber	0.36**	0.15	0.05	135

The table reports the regression of $\log(\text{price})$ in Africa on a British colony-dummy. Standard errors are clustered at the colony level. *** $p < 10\%$, ** $p < 5\%$, * $p < 10\%$.

TABLE III
Colonial Power and Prices in Africa, by Commodity and Period

	<i>early period</i>			<i>1920s</i>			<i>1930s</i>					
	British	st. err.	R-sq	N	British	st. err.	R-sq	N	British	st. err.	R-sq	N
cocoa	-0.30**	0.09	0.28	29	0.10	0.10	0.02	33	0.03	0.05	0.00	23
coffee	0.19	0.27	0.02	44	0.76***	0.17	0.35	39	-0.20	0.25	0.05	36
cotton	1.22**	0.53	0.36	30	0.23	0.14	0.07	40	0.45***	0.15	0.18	41
groundnut	0.45***	0.13	0.18	46	0.37**	0.17	0.14	49	0.27*	0.16	0.09	47
palm kernel	0.35***	0.08	0.21	46	0.27**	0.10	0.12	44	0.08	0.06	0.03	36
palm oil	0.19**	0.08	0.08	38	0.34***	0.06	0.18	34	0.18	0.24	0.06	28
rubber	0.05	0.11	0.00	66	0.26***	0.10	0.06	43	0.63***	0.15	0.40	26

The table reports the regression of log(price) in Africa on a British colony-dummy. Standard errors are clustered at the colony level. *** p<10%, **p<5%, *p<10%.

TABLE IV
Colonial Power and Prices in Africa, by Commodity and Region

	<i>Dep. var. is log(price in Africa)</i>						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	cocoa	coffee	cotton	groundnut	palm kernel	palm oil	rubber
British	0.43*** (0.06)	0.54* (0.26)	0.72** (0.25)	0.61** (0.23)	0.20*** (0.06)	0.17* (0.08)	0.51** (0.20)
British*West	-0.44*** (0.11)	-0.78** (0.27)	-0.57 (0.34)	-0.48* (0.25)			-0.29 (0.29)
West	0.08 (0.10)	0.37*** (0.04)	0.25 (0.27)	0.19 (0.22)	0.20*** (0.05)	0.04 (0.04)	0.20 (0.21)
N	85	119	111	142	126	100	135
R-sq	0.05	0.16	0.16	0.16	0.14	0.05	0.06
British East vs. French West	0.35***	0.17	0.47***	0.42***			0.31
British East vs. French Equatorial	0.43***	0.54*	0.71**	0.61**			0.51**
British West vs. French West	-0.01	-0.25***	0.14	0.14	0.20***	0.17*	0.22
British West vs. French Equatorial	0.07	0.12	0.39	0.33	0.40***	0.21**	0.42**
British West vs. British East	-0.36***	-0.42	-0.32	-0.28**			-0.09
French West vs. French Equatorial	0.08	0.37***	0.25	0.19	0.20***	0.04	0.20

Robust standard errors clustered at the colony level are reported in parenthesis. The bottom panel shows differences among regions.
*** p<10%, **p<5%, *p<10%.

TABLE V
Choice of African Prices

	West Africa	East Africa
Settler commodity	MEDIUM	MEDIUM if high-value commodity HIGH if low-value commodity
African commodity	LOW	MEDIUM