The political economy of coffee, dictatorship, and genocide

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Received 17 April 2001; received in revised form 4 April 2002; accepted 5 June 2002

Abstract

The paper presents a political economy analysis of the Habyarimana regime in Rwanda. The analysis shows how, through the producer price of coffee, the dictator buys political loyalty from the peasant population, and how, in periods of economic growth, the dictator increases his level of personal consumption as well as power over the population. The analysis of Habyarimana’s policy decisions leads to the conclusion that he was a totalitarian type of dictator. When, at the end of the 1980s, the international price of coffee fell dramatically, the regime switched to severe forms of repression to maintain its hold onto power. Genocide emerges as an outcome of Wintrobe’s loyalty-repression model, while foreign aid sustained the dictator’s hold onto power.

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JEL classification: D72; H30; H56
Keywords: Dictatorship; Coffee; Repression; Genocide; Rwanda

1. Introduction

I cannot cultivate the land the whole year while watching the merchants drive Mercedes.
(a Rwandan peasant in 1990)

In colonial times, Rwanda was already a densely populated country. Land was scarce, technology was at a very low level, and human capital was underdeveloped. Labor was the
only factor endowment that was abundant and, thus, cheap. The Belgian colonizer found a way to extract wealth from a labor-abundant economy. The colonizer promoted the coffee crop and forced the population to pay taxes (Uwezeiyimana, 1996, pp. 51–55). First, the Belgian elite and later the Rwandan elite realized that this was the only way to introduce the monetary economy in the rural areas. The colonizer had to make few investments and bear almost no costs. Habyarimana copied the colonial system and encouraged everybody to grow coffee. Coffee cultivation was heavily subsidized, so that new plants could be obtained almost free of cost. Some fertilizer was also distributed on the condition that it would only be used for the coffee trees. A large administration of coffee monitoring was put in place, with monitors assigned both advisory and policing tasks (Little and Horowitz, 1987). The monitors advised farmers on coffee cultivation practices and at the same time fined farmers who did not maintain their coffee fields. Uprooting coffee trees was forbidden under the Rwandan penal code (June 1978) and fines were levied.

Coffee exports during the Habyarimana regime (1973–1994) accounted for 60–80% of state revenue, depending on the annual output and market prices. Tea cultivation on large plantations became increasingly important as the price of coffee declined in the late 1980s. Farmers were driven off the land with little compensation in order to start state-run tea plantations in Gisovu and Mulindi (Bart, 1993; Uvin, 1998). Leading members of the Akazu (the presidential clan) were in charge of the coffee and tea agencies (Ocir-cafè and Ocir-thé). As long as the international price of these two export crops was high, the Habyarimana regime could afford to pay a high producer price to farmers. The collapse of these prices in 1987 and 1989 caused the regime to lower the price to farmers and to reduce social services by 40% (Guichaoua, 1992). This double loss hit farmers hard since they were already paying water taxes, health taxes, school fees, and were performing compulsory labor.

In this paper, I use a political economy approach to dictatorship in order to explain the coffee economy. An economy such as Rwanda that entirely depends on the export of coffee faces severe difficulties when the world market price for coffee collapses. The dictator himself may rely on foreign aid to stay in power, but how can he guarantee the loyalty of the coffee-growing farmers? This paper considers the political salience of the coffee economy from the dictator’s perspective. Using the loyalty-repression model as set out by Wintrobe (1998), I show how Habyarimana, on the verge of losing power in a single export crop economy, switched to repression and other coercive practices to sustain power. This response explains features of the Rwandan genocide.

2. A short historical overview

The formation of the Rwandan State was the result of century-long expansion of the central territory (ancient Rwanda) in which adjoining territories came under the control of

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2 In 1973, then minister of defense Juvenal Habyarimana, assisted by army officers from his home region in northern Rwanda (Gisenyi), became president after a coup d’etat.

3 The Kenyan coffee sector, by way of comparison, was run differently. Kenyan coffee producers were free to chose to cultivate coffee or not and were not subject to government imposed producer prices. See Bevan et al. (1989).
the King of Rwanda. This process took place in the 18th and 19th centuries, in particular under the reign of King Rwabugiri. The state was characterized by a high degree of organisation in which the king and his advisors decided on all important matters. The inner circle of power was composed of a small group of Tutsi, originating from two clans. The large majority of Tutsi as well as Hutu had no access to power or privilege. The two groups differed in their main economic activity. Hutu were cultivators, whereas Tutsi were cattle-breeders. A significant part of the land was reserved for pastures (ibikingi).

The advent of colonialism (first by Germany, then by Belgium) brought far-reaching change to the country. The colonizers observed the socio-political composition of the elite and the peasantry, and concluded that the Tutsi were a different race. Attracted by the high stature, facial characteristics, and leading position in society, the coloniser (church and state) concluded that the Tutsi originated from Northern Africa and were thereby genetically predestined to rule. The Hutu on the other hand were considered Bantu people, a black race, predestined to be ruled.

From 1959 to 1962, a Hutu-lead revolution took political power out of the hands of the ruling Tutsi elite. Not only the elite, but also thousands of Tutsi civilians, were driven out of their homes and had to take refuge in neighbouring countries. Grégoire Kayibanda, a Hutu educated in missionary schools, became president and installed the First Republic. Following the revolution, the percentage of Tutsi in the Rwandan population declined sharply. Said to be 17.5% of the population in 1952, Tutsi were counted as 8.4% of the total in 1991.4

Habyarimana, minister of defense in the Kayibanda government, took power in a coup d’État in 1973 that removed president Kayibanda from power. The main reason for this coup was that the Kayibanda regime favoured Hutu from Gitarama and other préfectures in the South. Whereas the landed interest of the northern elite (Abakonde) was preserved by the Hutu Revolution, they were not given access to lucrative business opportunities and political power by the Kayibanda regime. According to Pottier (1993), TRAFIPRO, Rwanda’s first state-run marketing system, was at the centre of the intrigue. Controlling 27 shops nationwide and 70 buying-up points for coffee (in 1966), TRAFIPRO was accused of running a monopoly and diverting rents to leading politicians in the Kayibanda government. TRAFIPRO was the economic arm of the Gitarama regime (Reyntjens, 1985).

From 1974 to 1976, Habyarimana consolidated his political power. He outlawed political parties and created his own Revolutionary Movement for Development (MRND). According to Prunier (1995), the MRND was a truly totalitarian party: every Rwandan had to be member of the MRND and all bourgmestres and préfets were chosen from among party cadres.5 Habyarimana institutionalised Umuganda, the compulsory communal labour, and had peasants participate in village animation sessions to honor him. He killed 56 businessmen and politicians closely related to the Kayibanda regime. All citizens were under tight administrative control. Every 5 years, the president was reelected with 99% of the vote.

In October 1990, a group of (ca. 7000) Tutsi rebels (former refugees and their sons) attacked Rwanda from Uganda. The following years were marked by a low-intensity civil war and ongoing peace negotiations. In 1993, a peace agreement was reached in Arusha whereby political power would be divided between the rebels and the government.

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Economic decline, political manipulation of ethnic animosities, and civil war all contributed to the disintegration of Rwandan society in the 1990–1993 period. Christophe Mfizi, close supporter of the president, broke with the MRND in 1992 after discovering state-sponsored massacres in several villages in Northern Rwanda. He wrote that a group called the “zero network” had penetrated the highest levels of government and that

“This group considers the country as an enterprise where it is legitimate to get out as much profit as possible . . . It is this group that has incited ethnic tensions to cover up their own interests . . .”

This corresponds to what Bardhan (1997, p. 1396) observed about the political economy of ethnicity, namely, that ethnicity is often used as a device to stake a claim in the process of rent-sharing:

“As the government has become more important in economic activities, more and more mobilised groups have used ethnicity to stake a claim in the process of rent-sharing.”

On April 6, 1994, when president Habyarimana was returning from a meeting in Arusha, his plane was shot down over Kigali airport. His death made the Hutu extremists in his regime turn Rwanda into hell on earth: in no less than 50 days, more then half a million (>500,000) Tutsi and Hutu opponents of the regime were killed. According to Desforges (1999), one of the prominent experts on the subject, the genocide was the result of a plan that had been prepared by the network around Habyarimana.

3. Dictatorship and political economy

3.1. A political economy approach

In a recent review essay, Newbury and Newbury (2000) proposed that one has to study the connection between state activity and peasant agency in the rural areas to understand the history of Rwanda in general and the history of the genocide in particular. Relying on research by Leurquin (1960) and Dorseay (1983), they write that the policies of forced crop cultivation (especially coffee) placed the colonial state directly in the production process. It was the colonial state that encouraged and further developed the penetration of state authority in the rural areas. The theory of political economy is ideally suited to analyse just this: how do the power of the state and the chosen path of economic development interact? In addition, what is the economic underpinning of the relationship between the state and the peasantry?

The advantages of a political economy approach are numerous. Such an approach to dictatorship and genocide allows the researcher to look through the dictator’s eyes and to explain the decisions the dictator is making. We do that, assuming that the dictator is rational. Rationality in economics is different from rationality in everyday parlance. It does not mean thoughtful, smart or nice thinking. Rationality means that the dictator will use his
available resources as well as possible to attain his goal(s). The dictator’s first priority is to stay in power. On dictators in sub-Saharan Africa, see Rowley (2000). Depending on the type of dictator, this can mean increasing power or enjoying the benefits of office (personal consumption). Noneconomists often define rationality differently from economists. Horowitz (1976), for example, states that rational behavior is behavior that benefits a country’s economy. Political economists believe that people in general, including politicians and especially dictators, care about their own interests first, i.e., being reelected or seeing their power increase. The dictator judges economic policies by the impact on his personal position and not on the welfare of the whole population. This does not necessarily mean that policies chosen are bad for the population; policies can be beneficial for the population as long as the policies benefit the dictator. This also means that it can be rational for the dictator to implement policies that do not benefit the population.

Whereas the core of the paper explains the functioning of Habyarimana’s dictatorship, the analysis also sheds light on features of the 1994 genocide. Most genocide scholars agree that genocide can be explained by the explicit choices made by the regime’s elite (for example, Kieran (1996) for Cambodia, Hilberg (1961) for Nazi-Germany, Dadrian (1995) for the Ottoman empire). Genocide scholars can disagree about the motivations of the regime for genocide, about the structure of decision-making among top leaders, about the degree of participation of the population in the killings, and so on. There is however strong consensus among the scholarly community that genocide requires systematic organization and implementation by the top leaders in the regime.

For Rwanda, it has been proposed that the number of people in charge of the organization of the genocide was very small. Desforges (1999) suggests that only a handful of people organized the Rwandan genocide.7 These people, a small group of persons known as the “zero-network”, were at the center of power in Rwanda and were responsible for the small-scale mass murders from 1990 onwards. This makes it possible to use the unitary actor assumption: in order to employ a political economy model of dictatorship, this zero-network can be taken to have acted as a rational unitary agent. If one uses this approach, one can see that political violence and repression, as used by the regime with special brutality from 1990 to 1994, serves someone’s interests. The reason the regime uses violence and repression is because it serves the purposes of the regime: to stay in power/increase power.

3.2. Theorizing about bad outcomes

Olson and Mcguire (1996) proposed a theory about how the form of government—democratic rule or dictatorship—affects tax rates, income distribution, and the provision of public goods. Coercion can be used to attain objectives and not just markets. In a market, transactions are voluntary and mutually advantageous. Coase (1960) explained how two parties can bargain on externalities and reach a Pareto-efficient outcome. The externality would be internalised unless the bargaining costs were too high. If transaction or bargaining costs were zero, all externalities would be resolved in a Pareto-efficient manner, because rational parties share maximized joint gains. The Coasean approach includes an awareness that some transaction costs are so high that trade will not occur. When the transaction costs

7 Personal communication with the author, March 4, 1999.
of the trade exceed the gains, the parties do not make the trade, and that too is as it should be. Thus, according to this approach, any status quo resulting from the market is efficient. The logic tells us that as Smith (1776) had suggested, as long as people are free to choose whether to transact, we are automatically in the most efficient of all worlds.

Economists and economic historians after Coase have tried to use the concept of voluntary exchange or Coasean bargains—and the associated transaction costs—to understand government and politics as well as the market. The voluntary exchange approach can be applied to government policies. Political transaction-cost theorists suggest that mutually advantageous bargaining within the political system tends to bring about socially efficient public policies. Political bargaining, they argue, leads to social outcomes that are Pareto-efficient (see Becker, 1983). If an inefficient policy is chosen, it follows that changing to a more efficient policy must bring net gains, and that there is some distribution of net gains that would leave everyone better off. Again, no matter which government policies are actually chosen, we observe an efficient outcome. Olson (2000, p. 58) concludes:

“If you start with the assumptions of the Coasean bargain and transaction cost approach and make no logical mistakes, you inevitably keep coming back to the conclusion that the social equilibrium we are in or heading toward is Pareto-efficient, at least to an approximation. Whatever may be thought of the distribution of income that results from bargaining in the market and in the polity, when all bargaining is done it tends to leave society in a situation where it is not possible to make one person better off without making someone else worse off: all the mutually advantageous deals have been made. The Coasean bargain and transaction cost approach does not lend itself to explaining bad outcomes” (my emphasis).

In this paper, we are interested in bad outcomes. Economic and political reality offers ample evidence of bad outcomes. War, poverty, famine, and genocide are bad outcomes that have occurred in the past decades and throughout history. As Hirschleifer (1994) has pointed out, people with a sufficient advantage in employing violence will use violence to serve their interests.

4. The Wintrobe model of dictatorship

4.1. The supply of loyalty from the population

Wintrobe (1998) proposes that the loyalty of the population vis-à-vis the ruler is a crucial factor for the survival of a dictatorship, more important than the size of the dictators’ budget. Wintrobe considers loyalty a capital asset in the hands of the population, which is accumulated to facilitate political exchange. Citizens and interest groups supply loyalty to the regime because they expect to receive some portion of the gains from political exchange in return. Each citizen accumulates an optimum portfolio of these assets, taking into account the expected rates of return and the risk. A change in either leads the investor to change his or

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8 See Olson (2000).
her portfolio. The change can be broken down into a substitution and an income effect. Citizens who demonstrate or speak out against the government are offering their loyalty to someone who offers an alternative policy.

The dictator relies on the loyalty of the population, but also uses a certain amount of repression to stay in power. The supply of loyalty \((L_s)\) and the level of repression are related: if repression increases, the risk of dealing with the opposition increases and the expected rate of return from opposition activities decreases. The relative attractiveness of dealing with the dictator or the autocratic regime then increases. Through the substitution effect, the supply of loyalty to the dictator \((L_s)\) is positively related to the level of repression. An increase in repression increases the likelihood that the individual will be the victim of sanctions, even if the individual is loyal. This reduces the individual’s wealth and reduces all investment in political loyalty, including to the regime. At low levels of repression, the income effect is small for most individuals and, as a consequence, the substitution effect dominates the income effect. This is important for understanding dictatorial behavior, because it means that a dictator can obtain more loyalty by increasing the level of repression.

\[ L_s, \text{ the supply of loyalty function (of the populace), can be expressed as:} \]

\[ L_s = L_s(R, P_L, PE) \quad \text{with } \partial L_s/\partial R > 0; \, \partial L_s/\partial P_L > 0; \, \partial L_s/\partial PE > 0. \]

\( PE \) is the performance of the economy, \( P_L \) is the price of loyalty received per unit of loyalty supplied, and \( R \) is the level of repression.

The supply of loyalty depends on the level of repression and also on the demand for loyalty by the dictator. Loyal citizens expect a return on their loyalty. Wintrobe describes this as a “price” the suppliers receive for each unit of loyalty supplied \( P_L \). If the supply of loyalty to the regime is abundant, the “price” each loyal citizen receives is low, making the production of power cheap for the dictator. The regime will try to keep loyalty cheap because it wants to use its resources for other purposes. Many events, exogenous as well as endogenous can however increase the price of loyalty. The appearance on the political scene of a political challenger, for example, may not only require a higher level of repression, but may also increase the price of loyalty. I assume the supply of loyalty to be positively related to its price. We will return to this issue later.

A further factor that determines the supply of loyalty is the performance of the economy \( PE \). If the rents from political exchange are high, the average citizen will be more inclined to cooperate with the regime. Moreover, a dictator who is able to distribute the rents of a well-performing economy can buy off even the worst opposition. The opposite is also true. If economic performance declines, the rents from political exchange decline and it is less profitable to be loyal to the regime. Ceteris paribus, the supply of loyalty, therefore, decreases.

4.2. *A general model of dictatorship*

In Wintrobe’s model, repression and loyalty form the input factors in a production function for power, \( \pi(R,L) \). Not all dictators maximize their power over the population. Some dictators only want enough power to stay in office and to enjoy the benefits of office. Wintrobe calls these kinds of dictators tinpots. Other dictators (totalitarians) want to maximize their power over the population. A general model of dictatorship describes a
dictator as an actor who wants to stay in power and wants to enjoy this power. Most real-world dictators are neither tinpots nor totalitarians, but a combination of these extremes. A general model of a dictator can be written as follows (Wintrobe, 1998, p. 117):

\[ \text{Max } U = U(\pi, C) \]

subject to \( B(\pi) = P_\pi(B - C) + C \) with \( P_c = 1 \)

The dictator maximizes utility derived from power and personal consumption. The left-hand side of constraint (3) is the power-into-money function \( B(\pi) \), which shows how budgetary resources are obtained. The right-hand side shows how the funds are spent, on personal consumption and power accumulation.

The first order conditions are:9

\[ \frac{U_c}{U_\pi} = \frac{1}{P_\pi - \pi P'_\pi - B_\pi} = \frac{1}{P_\pi \left[ 1 - \frac{1}{\varepsilon^P} \right] - B_\pi} \]

with \( \varepsilon^P = \frac{\partial \pi}{\partial P_\pi} \frac{P_\pi}{\pi} > 0 \).

Since the left-hand side of Eq. (4) is positive, the right-hand side must also be positive, i.e.:

\[ P_\pi \left[ 1 - \frac{1}{\varepsilon^P} \right] - B_\pi > 0 \]

The dictator, thus, trades off power and personal consumption. The part of the budget not used for consumption \((B - C)\) is used to attain the desired level of power. The more resources the dictator uses for power, the greater the level of power. The slope of the “money-into-power curve” is positive and it seems reasonable to assume diminishing returns. An increased budget, thus, allows the dictator to buy more loyalty and repression. At high levels of loyalty and repression, the dictator is forced to forge relations with those who are less and less sympathetic to his regime and to employ increasing force to repress hardcore regime opponents. An increase in the budget will, therefore, buy less power at high levels of \( L \) and \( R \) compared to low \( L \) and \( R \) (see Section 4.1).

The elasticity of \( \pi \) with respect to money \( \varepsilon^\pi \) depends on the political organization of the regime (how flexible are \( R \) and \( L \) with respect to their prices) and on the productivity of \( R \) and \( L \) in producing power \((\pi_R \text{ and } \pi_L)\). Wintrobe proposes that the latter depends on the characteristics of the population: if the opposition is weak or the population is docile and apathetic, \( \varepsilon^\pi \) will be high. This means that there are no limits to dictatorial power as long as the dictator has access to resources. A dictator can transform resources into power. Wintrobe also argues that with no limit to the dictator’s power, resources commanded can always increase, as long as there is property to confiscate, taxes can be increased.

The regime’s level of power and the regime’s budget are, therefore, simultaneously determined. A primary process for turning power into budgetary resources is the collection

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of taxes. When the ruler uses tax collection as a way to turn power into budgetary resources, $B$ and $\pi$ are positively related, that is, $\partial B/\partial \pi = B_{\pi} > 0$.

Due to the disincentive effect of taxation, the relationship could be reverse at high levels of taxation ($B_{\pi} < 0$). The slope and shape of $B(\pi)$ depend on economic institutions. It seems reasonable to assume that, initially, it must be positively sloped.

5. Habyarimana and the coffee economy

5.1. The Habyarimana regime

We have seen that the supply of loyalty in Wintrobe’s model is influenced by the performance of the economy. In applying the model to the Habyarimana regime, we need to specify the linkages between the political behavior of the dictator and the loyalty of the citizens. We have to do this because the model in Section 4 is a general outline: Wintrobe adds specificity when he describes Nazi-Germany, Stalinist Russia and Apartheid in South Africa. In this section, similar specificity is added for Rwanda. In a coffee economy such as Rwanda, the value of the production of coffee on the world market determines the regime’s budget. At the same time, the power of the regime is determined by the loyalty supplied by the population, which in turn depends on the producer price offered to the farmer producer. There is a mutual dependence between power and budget. Specific for Rwanda is that the coffee price and the production of coffee determine the dictator’s budget and the supply of loyalty of the population.

Formally,

$$L_s = (R, P_p) \text{ and } B = P_m[K(P_p)]$$

(5)

where $P_m$ is the world market price, $P_p$ the price paid to the producer, $K$ the volume of coffee sold, and $B$ is the regime’s budget. Since Rwanda is a price-taker in the international coffee market, Habyarimana did not control his budget as much as Wintrobe’s dictator. Nevertheless, he could manipulate the producer price of coffee $P_p$ or/and could use nonprice incentives to have farmers plant more coffee trees and, thus, raise the amount $K$ produced. The quantity produced depends on the price paid to the producer. The regime paid a fixed price to the farmer producer and farmers were forbidden to stop cultivating coffee. From the budget $B=P_mK$, the part $P_pK$ is reserved for the producers. The rest of the budget $P_dK$ (with $P_d=P_m-P_p$) finances personal consumption and repression.

Habyarimana can, thus, be portrayed as solving the following problem:

$$\text{Max } U(\pi, C)$$

subject to $P_m[K(P_p)] = P_N[1 - \frac{1}{\gamma}] - (P_m[K(P_p)])_\pi$ with $P_c = 1$

(6)

where

$$\frac{U_c}{U_\pi} = \frac{1}{P_p - \frac{\pi P_p'}{(P_m[K(P_p)])}} = \frac{1}{P_p \left[1 - \frac{1}{\gamma}\right] - (P_m[K(P_p)])_\pi}$$

(7a)
with

\[
\frac{\partial P_m[K(P_p)]}{\partial \pi} = \left(\frac{P_m[K(P_p)]}{\pi}\right). \tag{7b}
\]

Eq. (7a) shows the three elements that are important in Habyarimana’s calculations:

1. The marginal effect of power on the dictator’s budget. This relates to the economic organization of the regime and is used to answer the question, “how did Habyarimana turn power into money?”
2. The marginal cost of power accumulation, \( P_c[1 - (1/e^c)] \) relates to the political organization of the regime and is used to answer the question, “how did Habyarimana turn money into power?”
3. Habyarimana’s preferences for power versus consumption, \( U_c/U_p \).

5.2. The coffee economy

Fig. 1 shows the course of the international price of other mild arabica coffee and the price that was paid to the peasant producers (in US$ cents per kg). The end of the seventies was marked by a coffee boom that generated large revenues for the government and allowed it to increase the price paid to the producer from 45 Rwandan Francs (RWF) in 1974 to 65 RWF in 1976, and 120 RWF in 1977. According to Uwezeyimana (1996), it was in this period (1976–1980) that the Habyarimana regime established itself among the

![Graph showing international price and price paid to producers.](image)

Fig. 1. International price and price paid to producers.
peasant masses. When, toward the end of the 1980s, the international price declined, the regime subsidized the producer price. This is shown in Fig. 2 where the percentage of the international price in the hands of the state turns negative.

5.3. Political power and the coffee economy

5.3.1. The boom of 1976–1979

During the first period (1976–1979), world market prices for coffee were high. The difference between the fixed producer price and the world market price was substantial and the dictator derived large amounts of budgetary resources from coffee exports. In 1975, the world market price for coffee increased significantly. Through its dictatorial power, materialized in the monopoly on coffee trade in Rwanda, the Habyarimana regime fixed the producer price for coffee and extracted large revenues from the coffee sector. \( P_m \) remained high for several years. In order to continue the highly lucrative coffee policy, the regime implemented two measures. The regime raised the producer price for coffee, giving farmers an incentive to produce more and at the same time it strengthened monitoring of coffee cultivation. Elements of the latter policy were to make the neglect of coffee trees punishable by law and to provide every commune with a monitor to advise and control farmers’ coffee cultivation.\(^{10}\) It is not coincidence that these measures were

\(^{10}\) Little and Horowitz (1987, 1988).
taken in 1978. The very high world market coffee prices allowed the regime’s elite to increase both its personal consumption and its power over the population. An increased producer price for coffee (from 60 RFW to 120 RFW) increased the loyalty of the farmer population and at the same time increased coffee production and government coffee revenue.

The state as the monopsony buyer of coffee in Rwanda was not unique in Africa (see Bates, 1981). Governments throughout Africa promoted the cultivation of export crops for taxation purposes: a government-run agency buys the coffee (or another cash crop) from the smallholders for a fixed price. The state agency then processes the coffee and sells it on the international market. The official justification for this institution is to guarantee the farmer’s income. The farmer is protected from shocks in the world market by a fixed price. The government however not so much protects the farmer but transfers resources from the agricultural sector to the urban sector. The tax revenue from coffee exports is used to pay for the imports that benefit the urban elite. In the official rhetoric of the Habyarimana regime, the farmer was important.11 This glorification of the farmer masked the fact that the farmer was only considered important as a producer. The farmer had to produce coffee for export. In order to secure the loyalty of the farmer producer, the price paid to the coffee producer had to be high enough. This means that the dictator is trading off loyalty from farmers against rents. The inclusion of power in the objective function of the dictator expresses the readiness to trade-off power and personal consumption. If Habyarimana were a tinpot dictator, his optimal coffee price would be the price that maximizes the dictator’s tax revenue under the constraint that he maintains a minimum level of power (using loyalty and repression). As a totalitarian dictator, he would maximize power and not care about personal consumption. We can determine Habyarimana’s type by looking at his policy decisions following a budgetary shock.

Profits from export of coffee during periods with favorable (high) international coffee prices were supposed to be put in a special fund. This fund was called “fond d’égalisation” (price stabilization fund), and was supposed to balance the price paid to the producer when international coffee prices were low. In Rwanda, however, profits from coffee between 1975 and 1977 were directly transferred to the state budget (Tardiff-Douglin et al., 1993). The coffee sector was, therefore, directly linked to the core state functions.

In 1975, Habyarimana abolished all political parties and made all Rwandans members of the MRND (Republican Movement for Development), his single party. From then onwards, the MRND would be used as a vehicle for distributing political rents and to build mass loyalty. Having such a single party to build mass loyalty is, according to Wintrobe, an indicator of a totalitarian type of dictator. In this short period of the coffee-price windfall, we can also observe the workings of the dictator’s calculation that turns money into power. When, in 1976 and 1977, the regime’s elite were enriched by coffee exports, we notice an increase in repression and loyalty in Rwanda. In 1976, Habyarimana killed 76 dignitaries from the Kayibanda regime by starving them to death.

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11 On Habyarimana’s speeches to this effect, see Verwimp (2000).
Together with the new coffee laws and the increase in the producer price of coffee, this shows that

$$\varepsilon^\pi = \frac{\partial \pi}{\partial P^\pi} \frac{P^\pi}{\pi} \equiv 1$$  \hspace{1cm} (8a)$$

and that the marginal cost of accumulating power was small, or

$$P^\pi \left[ 1 - \frac{1}{\varepsilon^\pi} \right] \equiv 0$$  \hspace{1cm} (8b)$$

Eqs. (7a), (8a), and (8b) indicate a set of domestic conditions that favor the accumulation of large amounts of power ($\varepsilon^\pi$ high, $\beta^\pi > 0$). If, as I contend, the producer price for coffee is not only an important part of the (monetary) income of farmers, but also a key determinant of the political loyalty of the farmers towards the regime, the supply of loyalty from the population to the dictator will increase when the producer price for coffee increases:

$$\frac{\partial L^\pi}{\partial P} > 0$$

To recapitulate, a number of policy measures indicate that Habyarimana consolidated his power at the time of the coffee price windfall. He did not consume all extra income (as a tinpot dictator would do), but used (most of) the extra budgetary resources to increase the level of loyalty AND the level of repression.

5.3.2. The period of decline, 1986–1989

In 1985, the international quota system for coffee was abolished. The 1986 international coffee trade was liberalized, but nevertheless, the world market price was very high, since Brazil’s coffee harvest was lost because of unfavorable weather conditions. The price decreased in 1987, only to improve slightly in 1988 with a one-year reintroduction of the quota system. 1989 and 1990 were very bad years, with declining international prices and declining domestic coffee production. Government tax revenue from coffee production was halved and never restored in the following years.

Survey research on coffee farmers in 1992 has determined the minimum price required to continue the cultivation of coffee. That minimum price was around 120 RWF/kg. With lower world prices, from 1987 onwards, the government subsidized the coffee agency “to secure the income of the farmer”, the regime said. From agricultural research, it is known that farmers had other crops, mainly bananas, who give cash income. In his seminal book on Rwandan agriculture, Bart (1993) stresses the importance of bananas and especially banana beer for peasant income. Compared to coffee, bananas are a source of income the whole year round, with a large domestic market. Bananas can be eaten or used for brewing, the leaves are used to cover the soil and bananas require less labor input than coffee. Bananas are also important in social life. Habyarimana, however, wanted to reduce the area for banana cultivation. This is not because he believed occult rituals took place on banana plantations (Pottier, 1993), but because banana cultivation was the main

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12 See Bart (1993).
competitor for coffee in the allocation of land. Bananas were valued on the domestic market and beer was very popular among farmers. The subsidies had a political economy purpose: to maintain the supply of coffee (raising state revenue) and simultaneously keep the loyalty of the farmers. The total amount of subsidies to the coffee sector was high: 3 billion RWF in 1987, 1.6 billion in 1988, 2 billion in 1989, 4.6 billion in 1990, 1 billion in 1991, 2 billion in 1992, and 1 billion in 1993.13

As Habyarimana’s budget began to decline, he sought new sources of revenue, from raising new taxes to confiscating property. The best example is the removal of several hundred households from their land to allow the regime to grow tea in Northern Rwanda (Mulindi) and in Kibuye (Gisovu). When the world market price of coffee decreased, tea became an important source of foreign exchange for the regime (albeit only for a few years).14

In 1990, the price paid to the producer for coffee was dropped from 125 to 100 Rfr. Farmers, however, were no longer interested in growing coffee. Even with a price of 125 Rfr, farmers preferred to grow other crops. Bananas yielded a higher return per acre of land and could be sold on the domestic market. Tardiff-Douglin et al. (1993) reports the price at which farmers said they would destroy their coffee plants (which was forbidden by the regime). At 115 Rfr, 5% would do it. At 100 Rfr, 10% would do it. He relies on a 1992 survey by the Ministry of Agriculture.

Given the culture of respect (and fear) for authority, the percentage of farmers that would uproot their coffee plants was surely much higher. There is other evidence supporting dissatisfaction with government coffee policy. Farmers actually did uproot their coffee trees, in spite of the penalties (Uvin, 1998; Willame, 1995). The only explanation for this is the economic irrationality of the coffee policy from the viewpoint of the farmers. Tardiff-Douglin et al. (1993) reports that a bag of coffee would buy the Rwandan farmer in 1991 only half the goods it bought in 1980. It was especially this real decline in the price of coffee that made coffee cultivation unattractive to the farmer.15

Consider now Fig. 3. When an exogenous shock affects the dictator’s budget, in this case a drop of the world market coffee price, the equilibrium level of power and budgetary resources at \( E^* \) is displaced. A temporary equilibrium is at \( E_1 \), where the dictator collects less budgetary resources with the same level of power. Ultimately, \( E_2 \) is the new equilibrium because the decrease in budgetary resources results in a reduction in the dictator’s power. Any dictator, even a tinpot type, who uses just enough power to stay in office, would be worried about this decline, because he risks being deposed. Therefore, a dictator needs to reduce consumption (to increase power) and increase repression (because loyalty becomes more expensive). This is how Habyarimana responded in the late 1980s.

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13 Tardiff-Douglin et al. (1993).
14 Human Rights Watch (1994) found that the regime sold the present and future earnings from the tea plantation in Mulindi to buy weapons from Egypt for the value of US$6 million.
15 We can also look at the quality of the coffee as an indication for the decreasing interest of the farmer. At the beginning of Habyarimana’s reign, 70% of Rwanda’s coffee was of standard quality with some 4% reaching superior quality. Towards the end of the eighties, 70% was of only ordinary quality. See Uwezeyimana (1996, p. 77).
With declining coffee prices, he began subsidizing the coffee sector through the state budget and thereby reducing his personal consumption. Through the subsidy, the price paid for loyalty $p$ increased, making loyalty more expensive for the dictator. For the effect of the declining budget on consumption, we have the following indirect evidence: in 1988, at the beginning of the coffee crisis, Colonel Mayuya, a top leader in the regime, was murdered. On this, Prunier (1995, p.87) writes that, “in the late 1980s climate, when political competition for the control of the rapidly shrinking economy was becoming fiercer, the succession plans President Habyarimana seemed to entertain concerning Colonel Mayuya were a grave threat to “le clan de Madame”, who might lose control at a time when control was more vital then ever because Mayuya was the President’s own man.”

Wintrobe points out that a dictator, when confronted with a negative budgetary shock, has an alternative strategy. A dictator, certainly a totalitarian dictator, can increase his resources by confiscating property. This was also a strategy used by Habyarimana, as shown by the fact that he tried to increase taxes in 1989. This caused much resentment from the farmer population, which was already overburdened with all sorts of taxes. At the same time, Habyarimana increased the level of repression or, more accurately, he tried to increase budgetary sources on the one hand and substitute repression for loyalty on the other hand. The increase in repression is documented by the 1993 report of the International Federation of Human Rights Organizations: arbitrary arrest, killing of opposition members by government agents, several massacres of Tutsi, confiscation of property, rape, etc. Given

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16 Revealingly, Colonel Mayuya was replaced by Colonel Bagosora as member of the board of directors of the Bank of Kigali in 1988. Bagosora is known to be a major architect of the 1994 genocide.
the evidence we have on the level of power of Habyarimana (see also Section 5.3.1), we can conclude that Habyarimana belongs to the class of Wintrobe’s totalitarian dictators:

- he did not tolerate a decrease in his level of power,
- his level of power was not at a minimum level but at a maximum level,
- he was aware of his level of power over the population (he did not mistake himself for a tinpot dictator).

6. Extending the approach to explain features of the 1994 genocide

6.1. Existing theories of genocide in Rwanda

From the vast literature on the Rwandan genocide, one can distill five approaches that attempt to explain this historic event. The first and simplest explanation of the Rwandan genocide was given by its perpetrators, the Rwandan ministers, army officers and intellectuals of the genocidal regime. In front of cameras, in diplomatic missions and in public meetings, they said that the country’s Hutu majority hated its Tutsi minority and started to kill them spontaneously after the president’s plane was shot down. Since the rebels had attacked the country, the government and the population only defended themselves by killing the rebels’ accomplices residing inside Rwanda. A second, equally simple, explanation originates from a Malthusian reading of Rwanda. Soon after the genocide, the overpopulation theory of genocide became increasingly popular in certain academic circles. That is, that the demographic density of the country was so great that young men had no access to land and as a consequence became increasingly violent.

These theories have in common that they minimize or “forget” the role of the political elite of the Habyarimana regime. Two of the more interesting, less simplistic theories are developed by Desforges (1999) and Uvin (1998). The former, who has written the standard book on the Rwandan genocide, has shown in great detail how a small group of political leaders used genocide as a political strategy to remain in power. She describes the single party state, the compulsory labor, the manipulation of ethnicity, the lack of international response, the participation and resistance of farmers during the mass murder campaign and much more. Uvin, who is not arguing against Desforges but rather complements her analysis, destroys the myth of “development” that hung around the Habyarimana regime. He shows how international agencies, donors, NGOs, and consultants described Rwanda as a “model” for other developing countries and how painfully wrong this picture was. The Rwandan farmer, Uvin argues, was disempowered, humiliated, frustrated, and infantilized by the top-down state/aid system. He describes how farmers were driven off their land to grow tea on large-scale plantations, how the same people always benefited from foreign aid, how development projects consumed resources and did not reach the poor. This system, according to Uvin, produced structural violence, which in turn facilitates acute violence.

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18 This position, also called demographic entrapment, can be found in King (1994) and Bonneux (1994).
6.2. Genocide as a special case in the loyalty-repression model

Just before the outbreak of war, in August 1990, the Habyarimana regime decreased the price paid to the coffee producer from 125 to 100 RWF/kg. This sharp drop was the result of the very expensive subsidy policy to the coffee sector, which proved to be unsustainable. The 1990 coffee season was marked by the highest coffee subsidy ever (US$4 billion). The history of subsidies from 1986 to 1990 again documents the importance of the coffee economy for the regime, both economically and politically.

From a public finance point of view, this cut in subsidies makes sense. The regime needed the money to finance the upcoming civil war. However, there is a clear trade-off with farmer political loyalty. After the outbreak of war, the government increased the producer price for coffee again from 100 to 115 Rfr in 1991. In a political economy analysis, such decisions are not mere coincidence. War not only diminishes the power of the regime (it is proven to be vulnerable), but also increases the need to boost the state budget in order to pay the army. The price was increased again in 1991 out of fear that the farmers would decrease their loyalty to the regime in the face of the RPF attack and continue to uproot coffee trees. From the dictator’s point of view, this increase was necessary to maintain both the loyalty of the farmers AND the level of the state budget. Since the world market price for coffee continued to drop, the relative cost to the dictator of paying for the supply of loyalty continued to increase. A power maximizing dictator will, therefore, substitute repression for loyalty. As the budget of the dictator is shrinking, he will look for cheaper ways to increase loyalty and repression. The price paid to the coffee producer was already at its lowest and does not offer further cost-saving opportunities. Repression was made cheaper by training and using unemployed youth as militias. This is one of the strategies used from 1991 onwards.

The civil war offered the regime an excellent occasion to increase its popularity, despite declining coffee prices. I believe one can interpret the whole ideological construction of the Habyarimana regime as a giant effort to increase the supply of loyalty (or at least to keep it constant). That ideology existed already, but the regime used the war to spread extremist propaganda, based on Hutu supremacy and ethnic hatred (Chrétiens et al., 1995). A large supply of loyalty by a docile, willing population is the best situation a dictator can have. This keeps the price of loyalty very low. When all Rwandans (and especially the Hutu of course) would feel themselves part of the Habyarimana regime, they would not ask much in return (Prunier, 1995). The fact that a Hutu president is in power, according to this ideology, should already be enough for a Hutu farmer to feel proud. As if the Hutu farmer himself were a member of the government.

Even in the late 1980s and early 1990s, when repression increased substantially, most Hutu could reasonably assume that they would not fall victim to the regime’s repressive policies. This means that an increase in repression by the Habyarimana regime was positively related to an increase in the aggregate supply of loyalty. The loyalty curve of Tutsi is certainly backward bending, especially from 1990 onwards. On the one hand, the MRND facilitated the exchange of loyalty and rents between the regime and its supporters and on the other hand it facilitated the control and repression from nonsupporters. The Habyarimana regime from 1990 onwards pursued a policy of immiserization. Wintrobe (1998, pp. 82–83) believes that a strategy of immiserization may be attractive for the...
tyrannical type of dictator (or, for Rwanda, a dictator who behaves like a tyrant against a part of his population): a high level of repression combined with a low level of loyalty. Looting, confiscating and taxing gives dictators funds to buy off the army and prevents an impoverished population from spending resources (that they no longer have) in political action. The population will be too poor to oppose the dictator.

From Desforges (1999), we know that the regime offered large rewards to the Hutu population to incite them to kill the Tutsi. In the political economy model, this can be understood as a government policy of increasing the price paid for loyalty, in order to obtain a large supply of loyalty from the population. The “price” here is not merely the producer price for coffee, but all kinds of material rewards: appropriating land, looting houses, extracting cash from victims, enslaving a Tutsi woman, distributing free beer.

The decision of the regime in Rwanda to use genocide as a political strategy to survive can be characterized as follows.

- The earnings from the export of coffee had been in decline for the last couple of years. Coffee was no longer an interesting crop to the farmer. Together with decreased earnings, especially in real income terms, the loyalty of the farmer to the regime dissipated.
- The regime tried to hold onto power by using ethnic ideology to legitimize its reign. They were able to increase farmer loyalty by frightening them and depicting the rebels as devils and enemies. The regime substituted other rewards for the share of the coffee price to buy loyalty. In this way, the regime was able to hide its own failures (a failed economy and a failed democratization) and put the blame on one group of people (Tutsi).
- The 1994 genocide in Rwanda can be considered as a double corner solution where maximum loyalty is bought from (and supplied by) one group of people (Hutu) and maximum repression is exercised towards another group of people (Tutsi). We see this in Fig. 4, where $L_{sh}$ is loyalty supplied by Hutu and $L_{st}$ is loyalty supplied by Tutsi.

![Fig. 4. Genocide as a double-corner solution in the dictatorship model.](image-url)
The dictatorial equilibria are extreme repression against Tutsi and extreme loyalty from Hutu.

The Habyarimana regime did its utmost best to increase the supply of loyalty by the population. A substantial apparatus of ideological indoctrination was at work, including newspapers, radio broadcasting, and training sessions. The regime made use of its budgetary resources to spread its ideology. Ideology was a cheap instrument to increase the supply of loyalty in times of civil war. The legitimacy of the Habyarimana regime in the eyes of the farmer population declined at the end of the 1980s. Ideology was a means to boost and secure this legitimacy again. Blaming the Tutsi was instrumental in masking the regime’s responsibility for the economic hardship and the political crisis. The ideology became more extreme as the war and the negotiation process went on (1992–1993), and as the world coffee price continued to decline. At the same time, we notice a sharp increase in the level of repression used by the regime. In addition, the repression was mainly conducted against the Tutsi minority of the population, allowing the Habyarimana regime to increase (or at least maintain) its power over the population without losing the loyalty of most Hutu citizens.

7. Foreign aid

The last element to complete the picture is the level of foreign aid given to the Habyarimana regime. Foreign aid was very important to the regime. From the 1970s to the mid-1980s, foreign aid was approximately as important as earnings from coffee exports, but from the mid-1980s to the mid-1990s, the importance of foreign aid relative to export earnings increased dramatically. The continued supply of foreign aid allowed Habyarimana to sustain his budget, even when coffee prices continued to drop. However, foreign aid could not replace the role of the producer price for coffee. Foreign aid helped to keep the dictator in office during the civil war, but it did not help the farmer. This is consistent with the general picture presented by Easterly (2001).

8. Conclusion

I have linked coffee, dictatorship and genocide in a political economy framework. The mechanism used by the dictator to buy loyalty went through the economy. The loyalty of the population vis-à-vis the dictator is transmitted through the producer price of coffee. In a period of economic growth, the producer price of coffee is increased and personal consumption and the power of the dictator increase. I have shown why Habyarimana was a totalitarian type of dictator. The producer price of coffee was high compared to African standards, but coffee farmers were monitored and penalized for mistreating trees. When at the end of the 1980s, world coffee prices started to drop dramatically, the regime fell into a crisis.

When the regime was unable to pay for political loyalty through the coffee price mechanism, it looked for other mechanisms to maintain its power over the population. The abundance of cheap labor proved ideal: the regime increased repression by mobilizing
unemployed youth. These units targeted Rwanda’s Tutsi minority, whereas at the same time the ideological apparatus of the state mobilized Hutu farmers to join the genocidal campaign. Genocide is understood in the framework of Wintrobe’s model as a double corner solution in which loyalty of one group is bought by allowing and encouraging extermination of the other. It is not the fall of the coffee price that caused the genocide, but the desire of the ruling elite to stay in power at all cost. Foreign aid helped the dictator to reach his objectives.

Acknowledgements

An earlier version of this paper was presented at the 1999 Annual Meeting of the Public Choice Society, New Orleans, and the 2001 Spring Meeting of Young Economists, Copenhagen. The author thanks Frans Spinnewyn, Ronald Wintrobe, Arye Hillman, Lode Berlage, James Robinson, two anonymous referees, and seminar participants for helpful comments. This research benefited from funding by the Fund for Scientific Research of the regional Government of Flanders (Belgium).

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