Violence against Rich Ethnic Minorities:
A Theory of Instrumental Scapegoating

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Abstract: In many parts of the developing world, ethnic minorities play a central role in the economy. Examples include Chinese throughout Southeast Asia, Indians in East Africa and Lebanese in West Africa. These rich minorities are often subject to popular violence and extortion, and are treated ambiguously by local politicians. We analyze the impact of the presence of a rich ethnic minority on violence and on interactions between a rent-seeking local elite and a poor majority. We find that the local elite can always make use of the rich minority to maintain its hold on power. When the threat of violence is high, the government may change its economic policies strategically to sacrifice the minority to popular resentment. We investigate the conditions under which such instrumental scapegoating emerges, and the forms it takes. We then consider some social integration capturing, for instance, mixed marriages and shared education. Social integration reduces violence and yields qualitative changes in economic policies. Overall, our results help explain documented patterns of violence and segregation.

I.   Introduction

In many developing countries, the economy can be seen to be dominated by a specific ethnic minority. The Chinese, for instance, have long played a key role throughout Southeast Asia. In the Philippines, they represent 1% of the population but control 60% of the private economy; the numbers for Indonesia are, respectively, 3% and 70% (Chua 2004). In East Africa, private economies are often controlled by "Indians", that is, descendants of Indian families who migrated during the British colonization.[1] In many countries of West Africa, the Lebanese diaspora plays a similar role.[2] Despite their importance for the economies of their countries of adoption, these rich minorities are often subject to popular violence and extortion. Well-documented episodes include attacks against Indians during the 1964 Zanzibar revolution, anti-Indian riots in Kenya in 1982, anti-Chinese riots in Indonesia in 1998, beatings and murders of Lebanese in Ivory Coast in 2011, violence against Chinese-owned factories in Vietnam in 2014, and kidnappings of Indians in Madagascar in recent years. Moreover, and as forcefully argued by Amy Chua, violence against "market-dominant" minorities seems to have been fueled by globalization, see Chua (2004). As the difference in wealth levels between rich and poor increases, popular envy and discontent increase as well, and violence may be further amplified by the actions of populist governments.[3]

More generally, local politicians seem to display an ambiguous attitude towards these communities. When times are good, business-oriented minorities seem to be warmly welcomed and well-treated. In fact, relationships between local politicians and market-dominant minorities often devolve into crony capitalism, involving favored allocation of import licenses and public contracts. Examples include Suharto's well-documented

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[1]In Madagascar, Indians represent less than 1% of the population but own 50 to 60% of the country's economy (Indian Ministry of External Affairs 2002); In Tanzania, they represent 0.2% of the population and control 75% of the businesses (Puri 2013).

[2]For instance in Ivory Coast, the Lebanese represent less than 1% of the population but own 50% of the industrial sector, 99% of malls, 80% of the fish trade and export industry, 60% of the construction sector and 75% of the import and export of wood (The Daily Star Lebanon 2011).

[3]Bezemer and Jong-A-Pin (2013) find some support for Chua's claims in Subsaharan Africa.

favoritism towards his Chinese cronies in Indonesia in the 1980s, Daniel Arap Moi's initial position towards Indians when he became President of Kenya in 1979 and corruption in the diamond industry in Sierra Leone. However, these same communities provide convenient scapegoats when popular discontent is brewing. Local governments often fail to protect them from popular violence, riots and looting, or even actively fan the flames of ethnic hatred. Auregan (2012) notes that Lebanese-bashing is regularly used by politicians in West Africa when the incumbent government is going through a difficult time. In 1982, following shortages and price increases in staple foods, President Moi changed position and publicly accused Indians of causing the problems.[4] Hate-filled, outrageous declarations by politicians are not uncommon, see Adam (2009).

Market-dominant minorities have received surprisingly little attention from economists.[5] Their prevalence is somewhat puzzling, however. Why would a predatory elite grant outsiders privileged access to local markets? We develop a new model to help answer this question. The key mechanism is that, thanks to the presence of a rich ethnic minority, the local elite can always avoid popular violence. When popular discontent is brewing, the elite can deflect violence towards the minority. Our analysis helps rationalize the three stylized facts identified above: the prevalence of market-dominant minorities throughout the developing world, the fact that they often find themselves the victims of popular violence and the ambiguous attitude of the local elite towards them.

Our analysis builds on a growing literature, initiated by Acemoglu and Robinson (2006), which models interactions between an elite and a poor majority under the threat of violence. To date, most economics studies have viewed the elite as a homogenous, cohesive group. This simplifying assumption is inadequate to analyze the

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[4]In a widely disseminated discourse pronounced on February 6*th* 1982, Moi declared: "Instead of Indians using their advanced knowledge in business to help Africans improve their profit margins, Asians in this country are ruining the country's economy by smuggling currency out of this country and even hoarding essential goods and selling them through the backdoor", see New York Times (1982).

[5]We review the scant existing literature below.

politics of developing countries with a market-dominant ethnic minority. We relax this assumption and introduce a rich ethnic minority in the benchmark, static model of Acemoglu and Robinson (2006). The political, rent-seeking elite chooses how much to tax formal economic activities and how much to redistribute to the people. The poor majority may decide to become violent and to appropriate resources by force. We assume that popular violence can be directed against either the political or the economic elite, reflecting the fact that specific social groups are generally targeted during violent episodes.

We show that the presence of the rich minority has a first-order impact on outcomes. We find that it always allows the local political elite to maintain its hold on power. When the economic elite is much wealthier than the political elite, it provides a natural target for popular discontent. In other cases, the government changes its policies to deflect popular violence towards the rich minority. It may reduce its tax rate and even transfer resources to the poor majority to make the economic elite a more attractive target, in effect applying a strategy of *instrumental scapegoating*. We show that scapegoating is a strategy of last resort. When the threat of violence is not overly high, the government prefers to tax the economic elite at a high rate and to buy social peace by redistributing parts of its revenues to the people. The transition between peace and violence is discontinuous and leads to non-monotonic variations in economic policies.

We then study the determinants of violence. We find that violence is more likely to emerge when the poor majority is poorer and better able to solve its collective action problem. Collective ability is likely higher in uncertain times, when stakes are higher. Therefore, our model predicts that violence is most likely to appear in times of both economic crisis and political instability. This prediction is consistent with recent evidence on anti-Jewish pogroms in Eastern Europe, see Grosfeld et al. (2017). Violence also depends on elites' incomes. Violence tends to be more likely when the economic elite becomes richer. This is consistent with Amy Chua's thesis that increases in inequality caused by globalization fueled violence against rich minorities.

By contrast, an increase in the rents controlled by the political elite tend to improve its ability to buy social peace and hence to reduce violence. These countervailing effects may help explain the mixed empirical findings obtained on Chua's thesis, see Bezemer and Jong-A-Pin (2013).

Finally, we relax the assumption of complete separation between the two elites. We consider some partial social integration, for instance, via mixed marriages and shared education, leading to utility interdependence between the two groups. Sociological and anthropological studies reveal substantial variation in the degrees of integration of rich ethnic minorities. Part of this variation seems culturally determined.[6] For instance, in East African countries and Madagascar, long-established Chinese migrants seem to be better integrated than descendants of migrants from India, see Fournet-Guérin (2009). We show that social integration strongly affects outcomes. It decreases the likelihood of the rich minority becoming the target of popular violence and may incite the government to buy social peace even without material benefits. We also find that integration changes economic policies, in particular leading the government to favor a reduction in tax rate over an increase in redistribution when seeking to avoid violence.

Our analysis contributes to the literature on the political economy of developing countries. We provide one of the first analyses of the impact of the presence of a rich ethnic minority on violence and on interactions between a rent-seeking local elite and a poor majority.[7] Glaeser (2005) studies the strategic use of hatred speeches against an out-group when two political parties compete in elections. We consider a rent-seeking government here, and show how it can use economic policies strategically to deflect popular violence. Anderson et al. (2017) study the impact of weather shocks on the persecution of Jews in Medieval Europe.[8] Their empirical finding that persecution

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[6]Maintaining a strong separate identity could could also be a rational answer to the possibility of future violence and expulsion. Endogenizing the level of social integration would be an interesting direction for future research, see the Conclusion.

[7]Our analysis thus contributes to a large, growing literature on ethnic divisions and conflicts, see e.g. Esteban and Ray (2011), Caselli and Coleman (2013), Alesina et al. (2016).

[8]Voigtländer and Voth (2012) show that violence against Jews in medieval Germany partially

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may have strong economic determinants is in line with our framework and results. In a different context, Miguel (2005) also finds that scapegoating episodes have underlying economic determinants. Using local rainfall variation, he shows that witch killings in Tanzania may be caused by decreases in income rather than by irrational beliefs or cultural norms. Oster (2004), Burke et al. (2009) and Harari and La Ferrara (2012) find similar patterns in other contexts. In a political economy framework, we show that scapegoating may emerge for purely economic reasons and we provide a detailed analysis of its anatomy.

The remainder of the paper is organized as follows. We present our model in Section 2. We analyze the interactions between the three groups under separate elites in Section 3. We relax this assumption and look at the impact of social integration in Section 4. We conclude in Section 5.

II. The model

We consider an economy composed of three groups: a local political elite, a rich ethnic minority and a poor majority. Group sizes are, respectively, n_e, n_m and n_p with $n_e, n_m \ll n_p$. Society is not democratic: the political elite takes all political decisions unless it gets ousted from power. We assume in Sections 2 and 3 that every group seeks to maximize its material payoff.[9] This means, in particular, that the political elite is purely rent-seeking and does not care about social welfare. In Section 4, we introduce some social integration between the economic and the political elites. We study how the interdependence in payoffs generated by such integration affects outcomes.

There are three sources of income in the economy. The political elite obtains some rents R originating, for instance, from natural resources or foreign aid. The formal sector of the economy is run by the ethnic minority and generates a taxable per capita income

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determines persecution under Nazi Germany.

[9]We consider a political elite which is sufficiently small and cohesive to act as a single actor. In contrast, the poor majority may suffer from problems of collective action. As discussed in Acemoglu and Robinson (2006), these difficulties are captured in the reduced-form parameter μ below.

of y_m. People in the poor majority work in the informal sector in activities such as home-scale agriculture and earn a per capita non-taxable income of $y_p \ll y_m, \frac{R}{n_e}$.

Interactions between the local elite, the rich minority and the poor majority take place in three stages. The political elite first chooses a tax rate $\tau \in [0, 1]$ and a level of per capita transfer $t \geq 0$.[10] Formal economic activities are taxed at rate τ. People then decide whether to exert violence against the local elite (V_e), the rich minority (V_m), or to remain non-violent (N). If the political elite is not attacked, transfers are distributed to the poor majority and all individuals consume. We assume that the economic elite stays passive in what follows, for instance because the local elite severely limits what it can do. We discuss this assumption in more depth in Section V.

As in Acemoglu and Robinson (2006), we assume that raising taxes is costly. These costs, $C(\tau)$, capture both direct administrative costs and the distortionary effects of taxation on the economy. We assume that $C(0) = 0$, $C' > 0$, $C'' > 0$, $C'(0) = 0$ and $C'(1) > 1$.

When there is no risk of violence, a member of the local elite earns $\pi_e = \frac{1}{n_e}(R - n_p t + (\tau - C(\tau))y_m n_m)$, a member of the rich minority earns $\pi_m = (1 - \tau)y_m$ and a member of the poor majority earns $\pi_p = y_p + t$. To maximize its payoff, the political elite simply sets $t = 0$ and $\tau = \tau^*$ such that $C'(\tau^*) = 1$. The people do not receive any transfer, and the rich minority is taxed at the level that maximizes tax revenues for the group in power.

The possibility of violence modifies the analysis quite extensively. We make the following assumptions on the effects of violence. First, popular violence is directed against one of the two elites. Second, as in Acemoglu and Robinson (2006), we assume that when there is violence, a fraction μ of the resources are destroyed and that the people share what remains among themselves.[11] Third, faced with imminent violence the political elite can flee the country and obtain a payoff π_0 coming, for instance, from

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[10]Members of the economic elite are not eligible to receive these transfers.

[11]We also assume that the resources of the group that is not the target of the violence are unaffected by this destruction.

money diverted towards offshore accounts in the past.

Formally, if the people revolt against the elite in power, payoffs are $\pi_e = \pi_0$, $\pi_m = (1 - \tau)y_m$ and $\pi_p = (1 - \mu)(y_p + \frac{1}{n_p}(R + (\tau - C(\tau))y_m n_m))$. If the people target the rich minority instead, members of the different groups obtain, respectively, $\pi_e = \frac{1}{n_e}(R - n_p t + (\tau - C(\tau))y_m n_m)$, $\pi_m = 0$ and $\pi_p = (1 - \mu)(y_p + t + \frac{1}{n_p}(1 - \tau)y_m n_m)$.

We solve the game backwards. In the second stage and depending on tax and transfer levels, the poor majority decides whether to become violent and against which privileged group. In the first stage and anticipating popular actions, the political elite chooses public policies that maximize its material payoff.

We now analyze the benchmark case without a rich ethnic minority. If the people remain non-violent, they obtain $\pi_p = y_p + t$, while members of the elite obtain $\pi_e = \frac{1}{n_e}(R - n_p t)$. If the people overthrow the elite, they obtain $\pi_p = (1 - \mu)(y_p + \frac{1}{n_p}R)$ and members of the elite flee the country $\pi_e = \pi_0$. We see three domains emerging. First, the people may not rebel even when the elite captures all rents. This is an equilibrium if $(1 - \mu)(y_p + \frac{1}{n_p}R) < y_p$, which is equivalent to $\mu > \mu_{threat} = R/(R + y_p n_p)$. If the cost of violence falls below this threshold, however, the people do not peacefully accept a situation with no redistribution. The elite may avoid violence by redistributing part of the rents. More precisely, it sets the lowest possible transfer, i.e., the transfer $\hat{t}$ that makes people indifferent between violence and non-violence. Formally, $\hat{t} = (1 - \mu)\frac{R}{n_p} - \mu y_p$. In that case, an elite member earns $\frac{1}{n_e}(R - n_p \hat{t}) = \frac{1}{n_e}\mu(R + n_p y_p)$. This is an equilibrium as long as such *self-protective redistribution* is not excessively costly for the elite. If $\pi_e < \pi_0$, the elite rationally decides to flee the country. This is equivalent to $\mu < \mu_{exile} = n_e \pi_0/(R + n_p y_p)$. To sum up:

Proposition 1 *Suppose that there is no rich ethnic minority. If $\mu \geq \mu_{threat}$, the political elite captures all rents and the poor majority does not rebel. If $\mu_{exile} < \mu < \mu_{threat}$, the political elite redistributes positive transfers $\hat{t}(\mu) = (1 - \mu)\frac{R}{n_p} - \mu y_p$ and people remain peaceful. If $\mu < \mu_{exile}$, the people overthrow the political elite.*

When the cost of violence takes intermediate values, the political elite *buys social peace*

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by transferring resources to the people on the condition that they remain non-violent. Since $\hat{t}(\mu_{threat}) = 0$, the transition to the regime of positive transfers is continuous. As the cost of violence decreases, this transfer increases until it reaches the point where it leaves the elite too impoverished.

How do changes in parameters affect outcomes? A decrease in y_p or n_p leads to an increase in both μ_{threat} and μ_{exile}. When the poor majority is poorer or less numerous, violence is more attractive, making it more difficult for the political elite to buy social peace. Violence is thus more likely to emerge when the poor majority is poorer and more able to solve its collective action problem. By contrast, as rents R increase observe that μ_{threat} increases while μ_{exile} decreases. On the one hand, the elite is richer, which makes it a more ready target for popular discontent. On the other hand, the elite is both more able and more willing to buy social peace, since it has more to lose by leaving the country. Overall, the range of parameters over which the poor majority receives a positive transfer expands and violence is less likely to occur.

III.   Separate elites

In this section, we characterize the unique subgame perfect equilibrium of the game in the presence of a rich ethnic minority. We find that the existence of this third group enriches the analysis substantially, even when this group does not or cannot act to avoid violence. We first informally discuss its effects and then state our main result formally and discuss its implications in more detail.

First, the presence of the rich minority increases the political elite's payoff via increased tax revenues. This increase in payoffs is double-edged. While the government has more resources at its disposal - and hence can more easily influence outcomes - it also becomes a more attractive target for popular violence. However, this negative effect is outweighed by a second, key consequence. The rich minority represents another group that can be attacked by the poor majority. We find that the political elite can now

always avoid being overthrown. The government can deflect popular anger towards the rich ethnic minority.

We study precisely when and how the political elite is likely to sacrifice the rich ethnic minority. We find that the difference in wealth between the two elites plays a crucial role. Two domains emerge. On the one hand, the ethnic minority may be richer, after tax τ^*, than the political elite. This happens when $(1 - \tau^*)y_m n_m > R + (\tau^* - C(\tau^*))y_m n_m$. In that case, the government is not threatened by popular violence. The rich minority provides a natural target for popular discontent due to its large wealth. The government then simply sets its preferred policies of high tax and zero transfers and lets violence run its course when μ is low. Despite its rent-seeking behavior, the government ends up protected from popular anger by the presence of the rich minority.

On the other hand, the ethnic minority may be poorer than the political elite after tax τ^*. Formally, $(1 - \tau^*)y_m n_m < R + (\tau^* - C(\tau^*))y_m n_m$. In that case, we find that buying social peace is preferred by the government when the cost of violence is intermediate, while deflecting violence towards the minority is preferred when the cost of violence is low. To buy social peace, the government increases the levels of transfers as the cost of violence decreases, while leaving its tax unchanged. To turn the minority into a scapegoat, the government abruptly changes transfer and tax levels. Two cases emerge. When the ethnic minority is richer before tax than the political elite, the government simply lowers its tax rate and does not need to provide transfers. The ethnic minority becomes temporarily richer and hence provides a more attractive target. However, when the ethnic minority is poorer before tax than the political elite, the government now has to cancel its tax and make a positive transfer. The transfer is needed to provide an extra incentive for people to attack the ethnic minority, since it will not occur if the government is overthrown. In either case, the government deliberately manipulates its economic policies to deflect popular violence towards the rich ethnic minority. *Scapegoating is instrumental here*, and emerges as a way for the political elite to maximize its monetary payoff.

We next state our result formally. We introduce the following notations, and provide a detailed proof in Appendix A. As in Proposition 1, introduce $\mu_{threat^e} = [R + ((\tau^* - C(\tau^*))y_m n_m]/[R + ((\tau^* - C(\tau^*))y_m n_m + y_p n_p]$ and $\mu_{threat^m} = [(1 - \tau^*)y_m n_m]/[(1 - \tau^*)y_m n_m + y_p n_p]$. These are the cost of violence values that leave the poor majority on the verge of attacking the political elite (μ_{threat^e}) or the rich minority (μ_{threat^m}). Let $\hat{t}$ be the transfer that makes people indifferent between violence against the government and non-violence: $\hat{t}(\mu) = (1-\mu)[R+((\tau^*-C(\tau^*))y_m n_m]/n_p - \mu y_p$. When the economic elite is richer than the political elite before tax but poorer after tax, define $\bar{\tau}$ as the unique tax rate that satisfies $(1 - \bar{\tau})y_m n_m = R + (\bar{\tau} - C(\bar{\tau}))y_m n_m$ and $\mu_{scapegoat} = (1-\bar{\tau})y_m n_m/[R+((\tau^* - C(\tau^*))y_m n_m + y_p n_p]$. When the economic elite is poorer than the political elite before tax, define $\bar{t} = (R - y_m n_m)/n_p$ and $\mu_{scapegoat} = y_m n_m/[R+((\tau^* - C(\tau^*))y_m n_m + y_p n_p]$. We show in Appendix A that $\mu_{scapegoat}$ is precisely the value that makes the government indifferent between buying social peace and deflecting violence towards the rich ethnic minority.

Proposition 2 *Consider a society composed of a local political elite, a rich ethnic minority and a poor majority.*

1. If $(1 - \tau^*)y_m n_m > R + (\tau^* - C(\tau^*))y_m n_m$:

- If $\mu \geq \mu_{threat^m}$, then $\tau = \tau^*$, $t = 0$ and there is no violence.

- If $\mu_{threat^m} > \mu$, then $\tau = \tau^*$, $t = 0$ and the poor majority attacks the rich minority.

2. If $(1 - \tau^*)y_m n_m < R + (\tau^* - C(\tau^*))y_m n_m$:

- If $\mu \geq \mu_{threat^e}$, then $\tau = \tau^*$, $t = 0$ and there is no violence.

- If $\mu_{threat^e} \geq \mu > \mu_{scapegoat}$, then $\tau = \tau^*$, $t = \hat{t}(\mu)$ increases when μ decreases and there is no violence.

- If $\mu_{scapegoat} > \mu$, then the poor majority attacks the rich minority. If $y_m n_m > R$, then $\tau = \bar{\tau}$, $t = 0$ while if $y_m n_m < R$, then $\tau = 0$, $t = \bar{t}$.

Let us highlight four implications of Proposition 2. First, as already mentioned, the

political elite now always avoids popular violence. In particular, it can redirect the threat of violence and stay in power even in situations where it would flee the country in the absence of a rich ethnic minority.

Corollary 1 *In the presence of a rich ethnic minority, the local political elite can always maintain its hold on power and avoid popular violence.*

In a way, the economic elite acts as a fuse for the political elite. When the risks of an uprising become too strong, the government alters its public policies so as to become a less attractive target. This result shows that scapegoating can appear for purely material reasons, absent considerations of religion, hate or identity. In reality, local elites of course have other margins of behavior than economic policies. They typically control the media, for instance, and can use the media to incite ethnic hatred. We discuss these issues in more detail in Conclusion.

An important implication is that local elites should be particularly motivated, ex-ante, to attract an economically dominant minority to their country. In addition to the monetary benefits expected from such a move, the minority community may provide a convenient way to contain future popular miscontent. If the risks of violence are low, the community's expected benefits from moving in the country may be high. The ethnic minority may then gain, in expectation, from moving in and running the formal economy of the country, while being aware that it could end up being the victim of violence in specific circumstances.

Second, we find that even a purely selfish political elite prefers to buy social peace when the prospects of violence are not overly high. Turning the economic elite into a scapegoat is, in a way, a last resort strategy. Buying social peace is less costly for the government as it can still tax the economic elite heavily. Making itself poorer than the economic elite is not rational for the local elite, except when the prospects of violence are very high. Interestingly, this effect arises even in a static framework that does not account for future losses. In a dynamic framework, violence against the rich ethnic minority would also lead to reductions in future tax revenues and may further incite

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the local elite to buy social peace (see the Conclusion).

Corollary 2 *When the political elite is richer after tax than the economic elite and when the threat of violence is not overly high, the government prefers to buy social peace rather than sacrifice the rich ethnic minority.*

Third, optimal public policies vary with the cost of violence. Suppose that the economic elite is poorer after tax than the political elite. Then the optimal tax rate decreases discontinuously at the transition between peace and violence, while the optimal transfer varies discontinuously and non-monotonically. Transfers increase with a decrease in μ under peace but decrease when the government decides to sacrifice the minority.[12] Since the government is poorer due to the drop in tax from τ^* to 0, the transfers required to avoid popular violence are lower.

Corollary 3 *At the transition between peace and violence, optimal tax and transfer levels decrease discontinuously.*

Fourth, let us examine how changes in parameters affect outcomes. We see, first, that the range of parameters under which violence occurs expands as μ, y_p or n_p decreases. Thus, violence against rich ethnic minorities is more likely to happen when the poor majority is poorer and better able to act collectively. Next, increases in the rents of the political elite and in the revenues of the economic elite may have opposite effects. When R increases, the political elite becomes wealthier and hence a priori provides a more attractive target. Society may switch from regime 1 to regime 2 in Proposition 2. Within regime 2 and when $y_m n_m < R$, we see that $\mu_{scapegoat}$ is decreasing in R. Higher rents make the scapegoating strategy relatively more costly in that domain, however, which reduces the prospects of violence. With higher rents, the political elite is thus both better willing and better able to prevent violence. By contrast, the economic elite is a more attractive target when y_m or n_m increases, and society may then switch from regime 2 to regime 1. Within regime 1, μ_{threat^m} increases. Within regime 2 and when $y_m n_m < R$, $\mu_{scapegoat}$ also increases as the government has stronger incentives to

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[12]When $y_m n_m < R$, we show in Appendix that $\bar{t} < \hat{t}(\mu'_{scapegoat})$.

sacrifice the economic elite. Prospects for violence increase when the ethnic minority becomes richer.[13]

These predictions are consistent with empirical evidence. Bezemer and Jong-A-Pin (2013) use data from the Minority At Risk Project over the period 1984-2003 to test the prediction, put forward by Chua (2004), that the combination of democracy and globalization leads to more violence against market-dominant ethnic minorities in developing countries. They find support for this prediction in Sub-Saharan African, but not in other parts of the world. Our analysis can help explain these findings. Bezemer and Jong-A-Pin (2013) (p.110) stress that "low violence thresholds are due to Africa's uniquely high poverty levels", which is consistent with our prediction that the prospects for violence increase when y_p decreases. They also argue that the nature of globalization in Africa was such that the rise in income differences between the ethnic minority and the rest of the population was sharper than in other parts of the world. A combined decrease in y_p and increase in y_m unambiguously increases violence prospects against the ethnic minority in our model.

In a recent analysis, Grosfeld et al. (2017) study anti-Jewish pogroms in Eastern Europe between 1800 and 1927. They find that a severe, negative agroclimatic shock increased the probability of a pogrom by 3.8 percentage points at times of increased political uncertainty and had no effect on the likelihood of pogroms in times of a relative political stability. Thus, violence seems most likely to occur under both negative economic shock and political instability. These findings are consistent with our results, which predict that violence is most likely when both y_p and μ are low, i.e., at times where the people are particularly poor and better able to act collectively. When the political situation is uncertain, people have a strong incitation to solve their collective action problem. Grosfeld et al. (2017) also find that the occupation in which Jews specialized locally has a strong impact on violence. In particular, specialization in crafts, industry and transport sector does not seem to affect the probability of pogroms,

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[13]In contrast, the impacts of R, y_m and n_m on $\mu_{scapegoat}$ in regime 2 when $y_m n_m > R$ are ambiguous because of indirect effects due to changes in $\bar{\tau}$, the optimal tax rate under violence.

while specialization in moneylending or grain trading does. Our analysis suggests a simple explanation. This differential effect could potentially be explained by differences in wealth levels attained in different occupations.

Our analysis has relied, so far, on the assumption that the political and economic elites form two separate groups. This assumption seems to apply particularly well to two communities: Indians throughout East Africa and the Lebanese in West Africa. Adam (2010) documents the very poor level of social integration of Indians in East-African societies. Indians typically live in separate residential neighborhoods, attend denominational schools, go to community hospitals and belong to select clubs. They essentially marry within their own communities, and are intent on preserving their culture of origin in all its dimensions (religion, language, clothing, food). Bierwirth (1999) shows that the Lebanese community is also socially marginalized in Ivory Coast. Endogamy is prevalent, and resented: "there has been very little intermarriage between Lebanese immigrants and Africans, a fact that most Africans deeply resent." (p.95). In addition, only 10% of the Lebanese-Ivorian population has acquired Ivorian citizenship. Most of this community thus cannot vote and is, in fact, politically excluded.

As in the model, the political elite appears to benefit from the presence of these communities in two ways: through the vital role they play in local economies and through their usefulness as convenient scapegoats. See, in particular, the discussions in Adam (2010) on p.3 and in Bierwirth (1999) on p.83 and p.93. In stable times, the ethnic communities benefit from local elites' support, for instance, through favored allocation of import licenses and public contracts, Chua (2004, p.148-149). In Kenya, Daniel Arap Moi first protected the Indian minority politically when he became president in 1979, "granting them relative economic freedom while affirmatively directing lucrative opportunities to a select few of them.", Chua (2004, p.157).

In other times, the political elite may fan the flame of ethnic hatred by pointing out the supposedly excessive wealth of these communities, either publicly accusing them of taking advantage of the resources of their host country, or through direct

discriminatory actions targeting, and thereby highlighting, their assets. In 1983, for instance, the Tanzanian government launched an "Anti-Saboteur" campaign against fraudulent traffic that clearly targeted Indians, see Adam (2009). In Ivory Coast, Bierwirth (1999) explains that: "In 1992 and again in 1996, highly publicized sweeps were made by government officials to track down 'tax evaders' in the commercial quarters of Abidjan. In addition, both the official and opposition presses publish the names and pictures of Lebanese miscreants, helping to sustain the image of the Lebanese 'menace'" (p. 93). In Kenya, the economy deteriorated in 1981, leading in December to shortages of rice and flour and large increases in the price of staple food. President Moi then changed his position towards Indians and publicly accused them in February 1982 of causing these shortages and price increases, see New York Times (1982). Violence erupted in August. A coup was attempted to oust Moi, which quickly failed. Many Indian homes and shops were looted, while Moi kept voicing anti-Indian sentiment throughout. His ambiguous attitude towards Indians was, more generally, instrumental in helping him stay in power until 2002. This is consistent with our analysis, in which the political elite manages to deflect popular violence towards the ethnic minority, particularly in times of economic crisis and political instability.

The segregation between the economic and political elites is not absolute, however. Historical patterns reveal a substantial degree of variation in integration caused, in part, by cultural factors. In the next section we explore how partial social integration between the two elites affects their interactions, public policies and violence.

IV. Partial integration

In this section, we consider some partial level of social integration between the political and the economic elite. Members of these two groups may share the same socialization venues, may send their children to the same schools and may interact frequently in the workplace. As a consequence, they may also marry members of the other group. To fix ideas, we focus on mixed marriages in what follows; our modelling and results

apply to broader forms of integration.

We now assume that all adult individuals in society get married and that spouses care about each other's payoffs. For simplicity, we assume that the sizes of both elite communities are the same: $n_m = n_e$. Define f as the proportion of mixed marriages between the rich ethnic minority and the local political elite. We consider a low enough value of f in what follows. We also assume that members of the poor majority never marry members of the elite. Let α be the marital coefficient of altruism with $0 < \alpha < 1$. The utility u_i of individual i with payoff π_i married to individual j with payoff j is then $u_i = \pi_i + \alpha \pi_j$. Therefore, social integration generates interdependence in utilities between the two groups.

As a consequence, mixed marriages introduce some dissension within groups. The utility of a member of the local elite is equal to $(1 + \alpha)\pi_e$ if he married within his community and $\pi_e + \alpha \pi_m$ if he married a member of the rich ethnic minority. Since f is low, we maintain our assumption that the local elite is able to act as a single actor. More precisely, the political elite seeks to maximize the average utility in the group, which is now equal to

$$u_e = (1 + \alpha(1 - f))\pi_e + \alpha f \pi_m$$

Introduce $\beta = \alpha f / (1 + \alpha(1 - f))$. Observe that u_e is proportional to $\pi_e + \beta \pi_m$ and that β is increasing in f and in α. Social integration leads the political elite to partially take into account the interests of the economic elite. By contrast, note that the average utility of a non-elite member is equal to $u_p = (1 + \alpha)\pi_p$ and the incentives of the poor majority are unchanged.

Social integration has two direct effects. It first changes the preferred policies of the political elite in the absence of violence. Indeed, we have:

$$\pi_e + \beta \pi_m = \frac{1}{n_e}[R - n_p t + (\tau(1 - \beta) - C(\tau) + \beta)y_m n_m]$$

and the tax rate τ_β^* that maximizes the political elite's average utility satisfies $C'(\tau_\beta^*) =$

$1 - \beta$. This tax rate is decreasing in f and α. As both elites become more integrated, their payoffs become more interdependent and the political elite then reduces its tax levy on the economic elite. Interestingly, by reducing its wealth, it makes the political elite less likely to be threatened by popular violence. Thus, *social integration reduces the local elite's rent-seeking behavior* and hence its likelihood of being attacked.

Second, social integration changes the government's incentives when the ethnic minority is very rich and provides a natural target for popular violence. More precisely, suppose that the ethnic minority is richer after tax τ_β^* than the political elite. This is the counterpart to the first domain in Proposition 2. When the cost of violence is not overly high, and in the absence of government intervention, the people attack the minority. Due to social integration, however, the government now stands to gain from intervening and protecting the minority. The government may buy social peace even when not directly threatened by popular violence. In a way, such *altruistic protection* is the opposite of instrumental scapegoating.

We now characterize the subgame perfect equilibrium of the game under partial integration. As in Proposition 2, the equilibrium depends on the relative after-tax wealth situations of the two communities. (We provide a detailed proof in Appendix A). However, the two domains now have different boundaries and yield different optimal policies. In the first regime, the ethnic minority is richer after the altruistic tax τ_β^* than the political elite. This happens when $(1 - \tau_\beta^*)y_m n_m > R + (\tau_\beta^* - C(\tau_\beta^*))y_m n_m$. Define $\mu_{threat_\beta^m} = (1-\tau_\beta^*)y_m n_m/[(1-\tau_\beta^*)y_m n_m + y_p n_p]$. This is the cost of violence value below which the people are ready to attack the rich minority. When $\mu < \mu_{threat_\beta^m}$, the government first provides some altruistic protection for the minority. We show that to diffuse the threat of violence, the government increases the tax rate as μ decreases. This reduces the wealth of the minority and hence its attractiveness as a target. Of course, this also makes the political elite a more attractive target. When f is low enough, however, the political elite stops offering altruistic protection before this can put it at risk. Below a critical level $\mu = \mu_{protec}$, maintaining peace is too costly and the government will let popular discontent run its course. In that case, the government

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chooses its policies the same way as when there is no integration.

In the second regime, the ethnic minority is poorer after tax τ_β^* than the political elite. Formally, $(1 - \tau_\beta^*)y_m n_m < R + (\tau_\beta^* - C(\tau_\beta^*))y_m n_m$. The political elite is now a natural target for popular anger. Define $\mu_{threat_\beta^e} = [R + (\tau_\beta^* - C(\tau_\beta^*))y_m n_m]/[R + (\tau_\beta^* - C(\tau_\beta^*))y_m n_m + y_p n_p]$ as the critical level of the cost of violence below which the poor majority is ready to attack the local elite. Note that since $\tau_\beta^* < \tau^*$, $\mu_{threat_\beta^e} < \mu_{threat^e}$. As discussed above, the reduction in rent-seeking behavior induced by social integration also provides some protection against violence. When μ falls below this threshold, the government modifies its economic policies to buy social peace. However, the optimal policies are deeply altered by social integration. Without integration, Proposition 2 tells us that in this domain, $\tau = \tau^*$ and t increases when μ decreases. By contrast, with integration, $t = 0$ and τ decreases as μ decreases. We discuss these policy changes in more detail below. The decrease in tax reduces the wealth of the political elite and its attractiveness as a target. When μ is too low, however, buying social peace is too costly and the local elite sacrifices the rich minority. Let $\mu_{scapegoat_\beta}$ denote the value of the cost of violence below which the minority is sacrificed. We see that $\mu_{scapegoat_\beta}$ decreases as β increases. Social integration reduces the use of instrumental scapegoating.

Proposition 3 *Suppose that the local political elite and the rich ethnic minority are socially integrated with f low enough.*

1. If $(1 - \tau_\beta^*)y_m n_m > R + (\tau_\beta^* - C(\tau_\beta^*))y_m n_m$.

- If $\mu \geq \mu_{threat_\beta^m}$, then $\tau = \tau_\beta^*$, $t = 0$ and there is no violence.

- If $\mu_{threat_\beta^m} > \mu > \mu_{protec}$, then τ increases as μ decreases and there is no violence.

- If $\mu_{protec} > \mu$, then the poor majority attacks the rich minority. If $(1 - \tau^*)y_m n_m > R + (\tau^* - C(\tau^*))y_m n_m$, then $\tau = \tau^*$, $t = 0$. If $(1 - \tau^*)y_m n_m < R + (\tau^* - C(\tau^*))y_m n_m$, then $\tau = \bar\tau$, $t = 0$.

2. If $(1 - \tau_\beta^*)y_m n_m < R + (\tau_\beta^* - C(\tau_\beta^*))y_m n_m$.

- If $\mu \geq \mu_{threat_\beta^e}$, then $\tau = \tau_\beta^*$, $t = 0$ and there is no violence.

- If $\mu_{threat_\beta^e} \geq \mu > \mu_{scapegoat_\beta}$, then τ decreases as μ decreases and there is no violence.

- If $\mu_{scapegoat_\beta} > \mu$, then the poor majority attacks the rich minority. If $y_m n_m > R$, then $\tau = \bar{\tau}$, $t = 0$ while if $y_m n_m < R$, then $\tau = 0$, $t = \bar{t}$.

We next highlight two further implications of Proposition 3. First, social integration always reduces the prospects of violence. For instance, we show in Appendix A that μ_{protec} and $\mu_{scapegoat_\beta}$ decreases in β. As both elites become more integrated, the local elite engages more often in altruistic protection and less often in instrumental scapegoating. We also show that this property actually holds for any level of integration f.

Corollary 4 *As social integration between elites increases, the prospect of violence decreases.*

Second, we find that social integration changes the optimal policies implemented to buy social peace. Without social integration, the government only cares about its monetary payoff. It then sets the revenue-maximizing tax rate and increases its transfer as μ decreases, see Proposition 2. With social integration, the government also cares about the monetary payoff of the economic elite. This makes a decrease in the tax rate more attractive than an increase in transfers, since lower tax yields higher payoffs for the economic elite.

Corollary 5 *Under social integration, the local elite prefers to reduce the tax rate rather than increase transfers in order to buy social peace.*

Our analysis seems to be in agreement with documented patterns. To illustrate, consider Indonesia under the rule of General Suharto. Suharto and his family were very close to wealthy Chinese businessmen. He had started to form these privileged relationships while he was still an army officer. Once President, Suharto granted entrepreneurial Chinese economic freedoms and some very lucrative opportunities. For

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instance, he granted Sudono Salim, formerly known as Liem Sioe Liong and one of his main cronies, franchises in banking, flour milling and telecommunications (Chua 2004, p.44). In return, these Chinese businessmen financed the public and personal projects of Suharto. For instance, they financed the Tama Mini theme park monorail on behalf of Suharto's wife and established business partnerships with Suharto's children. "Throughout much of the eighties and nineties, no one outside of his family - not even high-ranking cabinet ministers - was closer to Suharto than these cronies, who spent hours every week golfing with the president, planning their joint investments.", Chua (2004, p.152). Interestingly, and in agreement with our framework, Suharto used his political power to protect the Chinese when they were threatened. "He suppressed anti-Chinese labor movements, like the one in North Sumatra in 1994 that turned into a bloody riot again Chinese Indonesians. He extinguished all forms of anti-Chinese dissent and press, even jailing a prominent Jakarta journalist who published an anti-Chinese article.", Chua (2004, p.151). Our model predicts the emergence of such altruistic protection when both elites are socially integrated.

We could also easily consider social integration between the rich ethnic minority and the poor majority. We analyze a version of the model with partial integration between these two groups in Appendix B. We show that our main results are robust if integration levels are low enough. More generally, prospects of violence also decrease as integration increases. This effect now has two causes. First, the people now have less incentives to attack the rich minority, since they would suffer from this violence due to utility interdependence. Second, connections with the rich minority also makes people wealthier, and hence less likely to use violence. Interestingly, we also show that scapegoating may not be a viable option for the political elite when integration is high. The political elite may then not necessarily avoid political violence. Therefore when the risk of violence is high, the political elite may have an incentive to prevent social integration between the poor majority and the rich ethnic minority.

The role played by such broader integration is well illustrated by the case of Madagas-

car. Madagascar contains no less than three minorities playing a disproportionate role in the economy: the descendants of 19th century Indian and Chinese migrants as well as recent Chinese migrants. The long-established Chinese community is considered to be quite integrated compared to the Indian community. As Fournet-Guérin (2009) points out: "Chinese are buried in the municipal cemetery; they do not live in a particular area; they are Catholic like most of the urban Malagasy population". By contrast, the Indian community remains a closed, endogamous community. Its members, also called "Karana", are strongly attached to their religions and traditions. Consistently with our analysis, despite similar levels of wealth, the Chinese community is less subject to kidnappings and shop destructions than the Indian community (La Lettre de l'Océan Indien 2013).

Interestingly, the new wave of Chinese immigration induces very different reactions. Whereas the old Chinese community is well assimilated into broader Malagasy society, as shown by the high rate of mixed marriages and the high proportion of mixed race Sino-Malagasy who usually view themselves as Malagasy and bear Malagasy names (Fournet-Guérin 2006), the new Chinese are much less well-perceived. As Tremann (2013) explains: "although xenophobia against the Chinese in Madagascar is relatively low, the arrival of a new group of temporary Chinese immigrants, who clearly stand out owing to the fact that they live in urban areas and make their presence felt in economic spheres to do with consumerism, has led to a partial shift in the position of outlets for Malagasy frustrations, with the new Chinese now taking on the role of scapegoats" (p.11). According to her, "local anger towards the Chinese and the negative perceptions of their presence that underpin it are partly shaped by a lack of social interaction with the Malagasy" (p.11).

In South Asia, the Chinese are typically not well-integrated. However, Thailand constitutes an interesting exception. According to Chua (2004), "many Thai Chinese speak only Thai and consider themselves as Thai as their indigenous counterparts. Intermarriage rates between the Chinese and the indigenous majority are much higher than elsewhere in South Asia" (p.179). And indeed, there is relatively little anti-Chinese

animus in Thailand: "the fact remains that ethnic relations today between the Chinese and indigenous Thais in Thailand are remarkably civilized" (p.180).

Overall, and consistent with our analysis, the level of social integration indeed seems to be a key determinant of violence targeted at a specific community.

V.   Discussion and conclusion

In this paper, we analyze violence against rich ethnic minorities. We study how the presence of a rich minority affects interactions between a rent-seeking local elite and a poor majority. We show that the local elite can maintain its hold on power by sacrificing the rich minority to popular discontent. Such instrumental scapegoating emerges even for purely material reasons. The model predicts that violence is more likely to occur when the poor majority is poorer and has better collective ability, when the ethnic minority is richer or when the rents controlled by the local elite are lower. In addition, scapegoating is a strategy of last resort. We then consider some partial social integration between the two elites. We find that the elite's integration reduces violence and affects economic policies.

We obtain these results in a parsimonious framework, built by introducing a rich ethnic minority in charge of the formal economy into the benchmark model of Acemoglu and Robinson (2006). Our analysis is based on a number of simplifying assumptions, including: (1) a group subject to violence loses all its local wealth, (2) the model is static, (3) the local elite can only use economic policies to try and redirect violence, (4) the rich minority cannot act to avoid violence, and (5) the level of social integration between the two elites is exogenous. We believe that the model's simplicity constitutes a strength of the analysis. Our results show that violence deflection and instrumental scapegoating constitute deep phenomenons, emerging from the interplay of elementary forces. Moreover, as discussed next, our main results are very likely robust to relaxing these simplifying assumptions. Our current setup thus likely captures some of the key

ingredients giving rise to scapegoating in reality. This is consistent with the empirical prevalence of market-dominant minorities and scapegoating across widely different cultural, historical and spatial contexts.

Let us next discuss these simplifying assumptions in more detail. (1) The assumption that an elite group subject to popular violence loses all its local wealth may be appropriate to explain the most extreme scapegoating episodes. To rationalize the low and medium levels of violence often observed, we relax this assumption in Appendix C. We assume that the group subject to violence only loses a fraction θ of its wealth. We find that our main results are robust. The three key domains uncovered in Propositions 2 and 3 and the comparative statics are qualitatively unchanged. Further, a decrease in θ reduces the prospects of violence and the transfers needed to buy social peace.

(2) Introducing dynamic considerations provides a natural direction for future research. With multiple periods, violence entails an additional cost to the local elite in the form of lost future tax revenues. Therefore, we expect the likelihoods of violence and scapegoating to be decreasing with the discount factor in a dynamic extension. Our current conditions then likely provide tight upper bounds on the emergence of violence. Dynamics would also yield another reason explaining why violence may be particularly likely to occur under political instability, since autocratic leaders who are uncertain to stay in power may not care much about future tax losses.

(3) In reality, local elites may have different means to try and redirect violence. Through their control of the military, they could provide military and logistic support to popular violence against ethnic minorities. They also generally control the media and can launch communication campaigns targeted against the minorities. These other means generally make it easier to redirect violence, and hence are likely substitutes of economic policies.

(4) We assumed in this analysis that the rich minority cannot act to prevent violence. Observe that it could simply be prevented to do so by the local elite, who holds all the power. In reality, market-dominant minorities may try to appease tensions and to buy

social peace themselves. They can also intervene in local politics and, for instance, give support to opposition groups. If an autocratic government decides to sacrifice a rich minority, however, it should generally have the power to enforce its decision.

(5) In reality, the level of social integration between the different social groups could also be endogenous. Either elite could, in particular, decide to stay segregated. If the likelihood of violence is high, the political elite may rationally decide to forbid inter-marriages and social mixing in order to keep a convenient scapegoat at its disposal. This could be a powerful hidden rationale behind ethnic and religious purity propaganda. For the economic elite, integration may further entail a trade-off. Whereas, as shown in Section 4, integration decreases the likelihood of violence, it may also diminish the ability to leave the country and resettle elsewhere. A community with past experience of violence could therefore decide to maintain its cohesiveness and deliberately avoid integration, at the risk of increasing its likelihood of experiencing future scapegoating episodes.

Appendix A: Proofs

Proof of Proposition 2

The elite maximizes its payoff π_e under the constraint: $\max(\pi_p(N), \pi_p(V_m)) \geq \pi_p(V_e)$.

When the minority is richer after tax τ^* than the local elite, the government always chooses the policies that maximize its payoff and is never attacked by the people since $(1-\tau^*)y_m n_m \geq R + (\tau^* - C(\tau^*))y_m n_m \Rightarrow \forall \mu, \pi_p(V_m|\mu, \tau^*, 0) \geq \pi_p(V_e|\mu, \tau^*)$. For μ such that $\pi_p(N|\tau^*, 0) \geq \pi_p(V_m|\mu, \tau^*, 0) \Leftrightarrow \mu \geq \mu_{threat^m} = (1 - \tau^*)y_m n_m / [(1 - \tau^*)y_m n_m + y_p n_p]$, the people remain pacific; otherwise they attack the minority.

When the minority is poorer after tax τ^* than the local elite, three domains emerge. For μ such that $\pi_p(N|\tau^*, 0) \geq \pi_p(V_e|\mu, \tau^*) \Leftrightarrow \mu \geq \mu_{threat^e} = [R + (\tau^* - C(\tau^*))y_m n_m] / [R + (\tau^* - C(\tau^*))y_m n_m + y_p n_p]$, the government chooses $(\tau, t) = (\tau^*, 0)$ and there is no violence; otherwise, the local elite needs to modify its policies to avoid violence.

The government may use *self-protective redistribution*, i.e. maximize its payoff under the contraints that the people is indifferent between remaining pacific and attacking them, formally $\pi_p(N|\tau, t) = \pi_p(V_e|\mu, \tau)$ and that the people prefer remaining pacific rather than attacking the minority, formally $\pi_p(N|\tau, t) \geq \pi_p(V_m|\mu, \tau, t)$. The first constraint leads the elite to keep the tax rate at τ^* and set the transfer $\hat{t} = (1 - \mu)[R + (\tau^* - C(\tau^*))y_m n_m] / n_p - \mu y_p$, which is continuous at μ_{threat^e} ($\hat{t}(\mu_{threat^e}) = 0$) and increases as μ decreases. The second constraint is respected for $\pi_p(N|\tau^*, \hat{t}) \geq \pi_p(V_m|\mu, \tau^*, \hat{t}) \Leftrightarrow \mu \geq \mu_1 = (1 - \tau^*)y_m n_m / [R + (\tau^* - C(\tau^*))y_m n_m + y_p n_p]$. The payoff of the elite, $\pi_e(N|\tau^*, \hat{t}) = \mu[R + (\tau^* - C(\tau^*))y_m n_m + y_p n_p] / n_e$, decreases as μ decreases.

Alternatively, the government may use *instrumental scapegoating*, i.e. maximize its payoff under the constraints that the people is indifferent between attacking them or attacking the minority, formally $\pi_p(V_m|\mu, \tau, t) = \pi_p(V_e|\mu, \tau)$ and that the people prefer attacking the minority rather than remaining pacific, formally $\pi_p(V_m|\mu, \tau, t) \geq \pi_p(N|\tau, t)$. The first constraint yields $(1 - \mu)(y_p + \frac{1}{n_p}(R + (\tau - C(\tau))y_m n_m)) =$

$(1-\mu)(y_p + t + \frac{1}{n_p}(1-\tau)y_m n_m) \Leftrightarrow t = (R + (\tau - C(\tau))y_m n_m - (1-\tau)y_m n_m)/n_p.$

Two cases have to be distinguished: if $y_m n_m \geq R$, $\bar{\tau}^{14}$ exists; therefore the local elite chooses $(\tau, t) = (\bar{\tau}, 0)$ and gets a payoff $\pi_e(V_m|\bar{\tau}, 0) = [R + (\bar{\tau} - C(\bar{\tau}))y_m n_m]/n_e$. If $R > y_m n_m$, they choose $(\tau, t) = (0, \bar{t})$ with $\bar{t} = (R - y_m n_m)/n_p$ and receive a payoff $\pi_e(V_m|0, \bar{t}) = y_m n_m/n_e$. The second constraint is respected for $\pi_p(V_m|\mu, \bar{\tau}, 0) \geq \pi_p(N|\mu, \bar{\tau}, 0) \Leftrightarrow \mu \leq \mu_2 = (1-\bar{\tau})y_m n_m/[(1-\bar{\tau})y_m n_m + y_p n_p]$ if $y_m n_m \geq R$, (resp. $\mu \leq \mu_{2'} = y_m n_m/(R + y_p n_p)$ if $y_m n_m < R$).

The local elite chooses *self-protective impoverishment* for μ such that $\pi_e(N|\tau^*, \hat{t}(\mu)) \geq \pi_e(V_m|\bar{\tau}, 0) \Leftrightarrow \mu \geq \mu_{scapegoat} = (1-\bar{\tau})y_m n_m/[R + (\tau^* - C(\tau^*))y_m n_m + y_p n_p]$ if $y_m n_m \geq R$ (resp. $\mu \geq \mu_{scapegoat'} = y_m n_m/[R + (\tau^* - C(\tau^*))y_m n_m + y_p n_p]$ if $R > y_m n_m$).

Since we have $\mu_1 < \mu_{scapegoat} < \mu_2$, and $\mu_1 < \mu_{scapegoat'} < \mu_{2'}$, the second constraints of the maximization problems never bind.

Note that the transfer is discontinuous at $\mu_{scapegoat'}$:

Proof: $\bar{t} = \hat{t}(\mu) \Leftrightarrow \mu = [y_m n_m + (\tau^* - C(\tau^*))y_m n_m]/[R + (\tau^* - C(\tau^*))y_m n_m + y_p n_p] \equiv \mu_3.$ *As $\mu_{scapegoat'} < \mu_3$, and $\hat{t}'(\mu) < 0$, therefore $\bar{t} < \hat{t}(\mu_{scapegoat'})$.* $\square$

Note also that all the thresholds decrease as y_p or n_p increase.

And $\partial \mu_{threat^e}/\partial R = y_p n_p/[R + (\tau^* - C(\tau^*))y_m n_m + y_p n_p]^2 > 0$

$\partial \mu_{threat^e}/\partial y_m = (\tau^* - C(\tau^*))n_m y_p n_p/[R + (\tau^* - C(\tau^*))y_m n_m + y_p n_p]^2 > 0$

$\partial \mu_{threat^m}/\partial y_m = (1-\tau^*)n_m y_p n_p/[(1-\tau^*)y_m n_m + y_p n_p]^2 > 0$

$\partial \mu_{scapegoat'}/\partial y_m = (R + y_p n_p)n_m/[R + (\tau^* - C(\tau^*))y_m n_m + y_p n_p]^2 > 0$

$\partial \mu_{scapegoat'}/\partial R < 0$ (obvious).

Proof of Proposition 3

The local elite chooses which strategy brings more utility, between the maximization of its utility u_e under the constraint: $u_p(N) \geq \max(u_p(V_m), u_p(V_e))$ and the maximization of its payoff π_e under the constraint: $u_p(V_m) \geq \max(u_p(N), u_p(V_e))$.

With partial integration, three domains emerge, even in the configuration where the

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[14]$\bar{\tau}$ is such that $R + (\tau - C(\tau))y_m n_m = (1-\tau)y_m n_m$

minority is richer after tax τ_β^* than the elite.

For μ high enough, the local elite chooses $(\tau_\beta^*, 0)$ and the people remain pacific. This is an equilibrium for $u_p(N|\tau_\beta^*, 0) \geq u_p(V_m|\mu, \tau_\beta^*, 0) \Leftrightarrow \mu \geq \mu_{threat_\beta^m} = (1 - \tau_\beta^*)y_m n_m/[(1 - \tau_\beta^*)y_m n_m + y_p n_p]$, if the minority is richer after tax τ_β^* than the local elite (resp. $u_p(N|\tau_\beta^*, 0) \geq u_p(V_e|\mu, \tau_\beta^*) \Leftrightarrow \mu \geq \mu_{threat_\beta^e} = [R + (\tau_\beta^* - C(\tau_\beta^*))y_m n_m]/[R + (\tau_\beta^* - C(\tau_\beta^*))y_m n_m + y_p n_p]$ if the minority is poorer).

We have $\partial\mu_{threat_\beta^e}/\partial R = y_p n_p/[R + (\tau_\beta^* - C(\tau_\beta^*))y_m n_m + y_p n_p]^2 > 0$

$\partial\mu_{threat_\beta^e}/\partial y_m = (\tau_\beta^* - C(\tau_\beta^*))n_m y_p n_p/[R + (\tau_\beta^* - C(\tau_\beta^*))y_m n_m + y_p n_p]^2 > 0$

$\partial\mu_{threat_\beta^m}/\partial y_m = (1 - \tau_\beta^*)n_m y_p n_p/[(1 - \tau_\beta^*)y_m n_m + y_p n_p]^2 > 0$

When μ falls below these thresholds, the local elite choose whether to buy social peace or let the people attack the minority.

When the minority is richer after tax τ_β^* than the local elite, the local elite may provide an *altruistic protection* to the minority, i.e maximize its utility under the constraints that the people is indifferent between remaining pacific rather and attacking the minority, formally $u_p(N|\tau, t) = u_p(V_m|\mu, \tau, t)$ and that the people prefer remaining pacific rather than attacking the local elite, formally $u_p(N|\tau, t) \geq u_p(V_e|\mu, \tau)$.

The first constraint leads the local elite to choose $(\tau, t) = (\tilde{\tau}_1, 0)$ with $\tilde{\tau}_1$ such that $(1 - \tau)y_m n_m/[(1 - \tau)y_m n_m + y_p n_p] = \mu$, or $(\tau, t) = (\tilde{\tau}_2, \tilde{t}_2)$ with $\tilde{\tau}_2$ such that $C'(\tau) = 1/\mu - \beta$ and $\tilde{t}_2 = (1/\mu - 1)(1 - \tilde{\tau}_2)y_m n_m/n_p - y_p$.

The local elite always choose first $(\tilde{\tau}_1, 0)$, as $\tilde{t}_2$ is negative at $\mu_{threat_\beta^m}$.

Proof: at $\mu_{threat_\beta^m}$, $\tilde{t}_2 \geq 0 \Leftrightarrow \tilde{\tau}_2(\mu_{threat_\beta^m}) \leq \tau_\beta^*$. However, as $\mu_{threat_\beta^m} < 1$, we have $\tilde{\tau}_2(\mu_{threat_\beta^m}) > \tau_\beta^*$, indeed $\tilde{t}_2 < 0$ at $\mu_{threat_\beta^m}$. $\square$

The tax rate is continuous $(\tilde{\tau}_1(\mu_{threat_\beta^m}) = \tau_\beta^*)$ and $\tilde{\tau}_1$ is increasing as μ decreases.

Proof: we derive $(1 - \tilde{\tau}_1)y_m n_m = \mu[(1 - \tilde{\tau}_1)y_m n_m + y_p n_p]$ with respect to μ and we get $(\mu - 1)\tilde{\tau}_1'(\mu) = [(1 - \tilde{\tau}_1)y_m n_m + y_p n_p]/(y_m n_m) \Rightarrow \tilde{\tau}_1'(\mu) < 0$. $\square$

Obviously, $\tilde{\tau}_2$ is increasing as μ decreases.

The second constraint can be binding, in which case the local elite has to choose (τ, t) such that $u_p(N|\tau, t) = u_p(V_m|\mu, \tau, t) = u_p(V_e|\mu, \tau)$: we call this *global protective impoverishment*.

When the minority is poorer after tax τ_β^* than the local elite, the local elite may use *self protective redistribution*, which is the same strategy as in Proposition 2 except that payoffs are replaced by utilities. The first constraint leads the local elite to choose $(\tau, t) = (\hat{\tau}_1, 0)$ with $\hat{\tau}_1$ such that $[R + (\tau - C(\tau))y_m n_m]/[R + (\tau - C(\tau))y_m n_m + y_p n_p] = \mu$, or $(\tau, t) = (\hat{\tau}_2, \hat{t}_2)$ with $\hat{\tau}_2$ such that $C'(\tau) = 1 - \beta/\mu$ and $\hat{t}_2 = (1 - \mu)[R + (\hat{\tau}_2 - C(\hat{\tau}_2))y_m n_m]/n_p - \mu y_p$.

The local elite always choose first $(\hat{\tau}_1, 0)$, as $\hat{t}_2$ is negative at $\mu_{threat_\beta^e}$.

Proof: $\hat{t}_2 \geq 0 \Leftrightarrow \hat{\tau}_2(\mu_{threat_\beta^e}) - C(\hat{\tau}_2(\mu_{threat_\beta^e})) \geq \tau_\beta^* - C(\tau_\beta^*)$. However, as $\mu_{threat_\beta^e} < 1$, we have $\hat{\tau}_2(\mu_{threat_\beta^e}) < \tau_\beta^* < \tau^*$, and because we know that the function $\tau - C(\tau)$ is concave and reaches its maximum for τ^*, we necessarily have $\hat{\tau}_2(\mu_{threat_\beta^e}) - C(\hat{\tau}_2(\mu_{threat_\beta^e})) < \tau_\beta^* - C(\tau_\beta^*)$. Indeed $\hat{t}_2 < 0$ at $\mu_{threat_\beta^e}$. $\square$

The tax rate is continuous $(\hat{\tau}_1(\mu_{threat_\beta^e}) = \tau_\beta^*)$ and $\hat{\tau}_1$ is decreasing as μ decreases.

Proof: we derive $R + (\hat{\tau}_1 - C(\hat{\tau}_1))y_m n_m = \mu[R + (\hat{\tau}_1 - C(\hat{\tau}_1))y_m n_m + y_p n_p]$ with respect to μ and we get $(1 - \mu)\hat{\tau}_1'(\mu)(1 - C'(\hat{\tau}_1)) = [R + (\hat{\tau}_1 - C(\hat{\tau}_1))y_m n_m + y_p n_p]/(y_m n_m) \Rightarrow \hat{\tau}_1'(\mu) > 0$ since $C'(\hat{\tau}_1) < 1$ as $\hat{\tau}_1 < \tau^*$. $\square$

Obviously, $\hat{\tau}_2$ is decreasing as μ decreases.

The second constraint can bind such that the local elite has to choose *global protective impoverishment*.

The elite may also decide to *let the people attack the minority* or use *instrumental scapegoating*, i.e. maximize its utility under the constraint that the people prefer attacking the minority rather than remaining pacific or attacking the elite.

When the minority is richer after tax τ_β^* than the local elite, two situations emerge. If the minority is richer after tax τ^* than the local elite, the constraint that the people prefer attacking the minority rather than the local elite when they use their most preferred policy $(\tau^*, 0)$ is not binding. The local elite chooses $(\tau, t) = (\tau^*, 0)$ and they get a utility $u_e(V_m | \tau^*, 0) = [R + (\tau^* - C(\tau^*))y_m n_m]/n_e$. When the minority is poorer after tax τ^*, the constraint is binding and the local elite chooses τ and t which maximize their utility and such that $u_p(V_m | \mu, \tau, t) = u_p(V_e | \mu, \tau)$: the local elite chooses $(\tau, t) = (\bar{\tau}, 0)$ and gets a utility $u_e(V_m | \bar{\tau}, 0) = [R + (\bar{\tau} - C(\bar{\tau}))y_m n_m]/n_e$.

When the minority is poorer after tax τ_β^* than the local elite, the policies and utilities of the local elite for *instrumental scapegoating* are the same as in Proposition 2.

The local elite never use *global protective impoverishment* (GPI) for a β low enough.
Proof: GPI gives to the elite a utility $u_e(N|\tau_{gpi}, t_{gpi}) = (1+\beta)(1-\tau_{gpi})y_m n_m/n_e$. GPI is not defined for tax rates lower than $\bar{\tau}$, therefore we necessarily have $\tau_{gpi} \geq \bar{\tau}$. Non-protection and instrumental scapegoating give a constant utility to the elite, and for every configuration we have $u_e(N|\tau_{gpi}, t_{gpi}) < u_e(V_m|\tau, t)$ when $\beta \to 0$. Indeed there must exist a β for which the elite never uses GPI. $\square$

There exist a threshold μ_{protec}, when the minority is richer after tax τ_β^*, and $\mu_{scapegoat_\beta}$ when the minority is poorer, that separates peace to violence against the minority.
Proof: When buying social peace, either through altruistic protection or self-protective redistribution, the problem of the elite is to choose τ and t that maximize $u_e = \pi_e + \beta\pi_m$ under the constraint $\max(u_p(V_e), u_p(V_m)) \leq u_p(N)$. Only $u_p(V_e)$ and $u_p(V_m)$ depend on μ: as μ decreases, $\max(u_p(V_e), u_p(V_m))$ increases, so the set (τ, t) satisfying the constraint shrinks, and therefore the maximum lowers and $u_e(N|\tau, t)$ decreases. However $u_e(V_m|\tau, t)$ is independent of μ. We have that if the optimal policy of the elite is (τ^*, t^*) for μ and $(\tau^{*'}, t^{*'})$ for $\mu' < \mu$, and if $x(\tau^*, t^*) = V_m$, then $x(\tau^{*'}, t^{*'}) = V_m$. Indeed $\exists \bar{\mu}$ such that $\mu < \bar{\mu} \Rightarrow V_m$ and $\mu > \bar{\mu} \Rightarrow N$. $\square$

These thresholds decrease as β increases.
Proof: as global protective impoverishment gives a lower utility to the elite than altruistic protection and self-protective redistribution, μ_{protec} and $\mu_{scapegoat_\beta}$ are bounded from below by the threshold μ_{gpi} for which the elite is indifferent between global protective impoverishment and no protection or instrumental scapegoating.
$u_e(N|\tau_{gpi}, t_{gpi})$ *increases as β increases while $u_e(V_m|\tau^*, 0)$, $u_e(V_m|\bar{\tau}, 0)$ and $u_e(V_m|0, \bar{t})$ are constant. Indeed, μ_{gpi} decreases as β increases.* $\square$

In general, higher integration reduces the prospects of violence.
Proof: we prove that if the maximization problem of the elite leads to non violence for a given β, it cannot lead to violence against the minority for a higher β.

Suppose we have N for β' and V_m for $\beta \geq \beta'$. Let (τ^*, t^*) be solution to β.

$\beta \geq \beta'$, $\forall(\tau, t)$, $(\pi_e + \beta\pi_m)(\tau, t) \geq (\pi_e + \beta'\pi_m)(\tau, t)$, then

$\max \pi_e + \beta\pi_m \geq \max \pi_e + \beta'\pi_m \Rightarrow \pi_e(\tau^*, t^*) \geq \pi_e(\tau^*, t^*) + \beta'\pi_m(\tau^*, t^*)$.

We have a contradiction. $\square$

Appendix B: Extension with Partial Integration Between the Ethnic Minority and the People

We consider the same modelling and notations as in section IV, except that mixed marriages are only possible between members of the people and members of the rich ethnic minority.

Thus $u_p = (1 + \alpha(1 - f))\pi_p + \alpha f \pi_m$ or $u_p = \pi_p + \beta\pi_m$, with $\beta = \alpha f/(1 + \alpha(1 - f))$.

Assume that $n_p = kn_m$, with $k \geq 1$.

Note that the maximum proportion of intermarriage between the ethnic minority and the people is $f_{max} = n_m/n_p = 1/k$ and as a consequence, β_{max} decreases as k increases.

We assume here that k is fixed, and study the impact of β on outcomes.

The utility of the political elite is unaffected, so its optimal policies are the same as in section III, that is τ^* such that $C'(\tau^*) = 1$ and $t^* = 0$.

We compute the new thresholds for μ_{threat^e} and μ_{threat^m} in this configuration:

μ_{threat^e} is such that the people is indifferent between peace and violence towards the political elite, i.e. $y_p + \beta(1 - \tau^*)y_m = (1 - \mu_{threat^e})[y_p + \beta(1 - \tau^*)y_m + (R + (\tau^* - C(\tau^*))y_m n_m)/n_p]$

μ_{threat^m} is such that the people is indifferent between peace and violence towards the ethnic minority, i.e. $y_p + \beta(1 - \tau^*)y_m = (1 - \mu_{threat^m})[y_p + (1 - \tau^*)y_m n_m/n_p]$.

In this setting, $\mu_{threat^e} \geq \mu_{threat^m} \Leftrightarrow R + (\tau^* - C(\tau^*))y_m n_m \geq (1 - \beta k)(1 - \tau^*)y_m n_m$.

We note here that, unlike the benchmark model of section III, μ_{threat^e} may be larger than μ_{threat^m} even when $(1 - \tau^*)y_m n_m \geq R + (\tau^* - C(\tau^*))y_m n_m$.

We assume here that β is such that $\mu_{threat^e} \geq \mu_{threat^m}$. Thus for a β high enough, the

ethnic minority never acts as a natural target for popular violence.

Moreover, $\mu_{threat^e} = [R + (\tau^* - C(\tau^*))y_m n_m]/[y_p n_p + \beta(1 - \tau^*)k y_m n_m + R + (\tau^* - C(\tau^*))y_m n_m]$, so μ_{threat^e} decreases as β increases..

Let us now consider the strategies that the government may use when μ falls below μ_{threat^e}. The political elite can use *self-protective redistribution*, i.e. maximize its pay-off under the constraints that the people is indifferent between remaining pacific and attacking them, and that the people prefer remaining pacific rather than attacking the ethnic minority. The first constraint leads the elite to tax the ethnic community at the tax rate $\hat{\tau}$ such that $C'(\hat{\tau}) = 1 - \beta k$, which decreases as β increases, and set the transfer $\hat{t} = (1 - \mu)[R + (\hat{\tau} - C(\hat{\tau}))y_m n_m]/n_p - \mu[y_p + \beta(1 - \hat{\tau})y_m]$ which increases as μ decreases, and decreases as β increases. The second constraint is satisfied for μ such as $u_p(N|\hat{\tau}, \hat{t}) \geq u_p(V^m|\hat{\tau}, \hat{t}) \Leftrightarrow \mu \geq (1 - \beta k)(1 - \hat{\tau})y_m n_m/[R + (\hat{\tau} - C(\hat{\tau}))y_m n_m + y_p n_p + \beta k(1 - \hat{\tau})y_m n_m]$.

The political elite can alternatively use *instrumental scapegoating*, i.e. maximize its payoff under the constraints that the people is indifferent between attacking them or attacking the minority, and that the people prefer attacking the minority rather than remaining pacific.

The first constraint yields $(1 - \mu)[y_p + \beta(1 - \tau)y_m + (R + (\tau - C(\tau))y_m n_m)/n_p] = (1 - \mu)[y_p + (1 - \tau)y_m n_m/n_p + t] \Leftrightarrow \bar{t} = [R + (\tau - C(\tau))y_m n_m - (1 - \beta k)(1 - \tau)y_m n_m]/n_p$. If $y_m n_m \geq R$, and if there exists $\bar{\tau}_\beta$ such that $R + (\bar{\tau}_\beta - C(\bar{\tau}_\beta))y_m n_m = (1 - \beta k)(1 - \bar{\tau}_\beta)y_m n_m$, then the political elite uses the policies $(\bar{\tau}_\beta, 0)$ to induce violence towards the minority. But this $\bar{\tau}_\beta$ is necessarily lower than $\bar{\tau}$ (defined in Section III) and decreases as β increases. Moreover, such a $\bar{\tau}_\beta$ might not exist. In particular, for $\beta \geq (y_m n_m - R)/(k y_m n_m)$, there does not exist such a $\bar{\tau}_\beta$. When $\bar{\tau}_\beta$ does not exist or when $R > y_m n_m$, the political elite has to chose a tax rate equal to 0, and a transfer $\bar{t} = [R - (1 - \beta k)y_m n_m]/n_p$ in order to induce instrumental scapegoating. The second constraint is respected for $\mu \leq (1 - \beta k)(1 - \bar{\tau}_\beta)y_m n_m/[y_p n_p + (1 - \bar{\tau}_\beta)y_m n_m]$ if $y_m n_m \geq R$ and if $\bar{\tau}_\beta$ exists; and for $\mu \leq (1 - \beta k)y_m n_m/[R + y_p n_p + \beta k y_m n_m]$ otherwise.

The political elite chooses *self-protective redistribution* for μ such that $\pi_e(NV|\hat{\tau}, \hat{t}) \geq$

$\pi_e(V^m|\bar{\tau}_\beta, 0)$, if $\bar{\tau}_\beta$ exists; and for μ such that $\pi_e(NV|\hat{\tau}, \hat{t}) \geq \pi_e(V^m|0, \bar{t})$, otherwise.

The thresholds for scapegoating are respectively:

$\mu_{scapegoat} = (1 - \beta k)(1 - \bar{\tau}_\beta)y_m n_m/[R + (\hat{\tau} - C(\hat{\tau}))y_m n_m + y_p n_p + \beta k(1 - \hat{\tau})y_m n_m]$

and $\mu_{scapegoat} = (1 - \beta k)y_m n_m/[R + (\hat{\tau} - C(\hat{\tau}))y_m n_m + y_p n_p + \beta k(1 - \hat{\tau})y_m n_m]$.

Both thresholds $\mu_{scapegoat}$ are decreasing in β:

Proof:

$1/ \; \mu_{scapegoat} = (1 - \beta k)(1 - \bar{\tau}_\beta)y_m n_m/[R + (\hat{\tau} - C(\hat{\tau}))y_m n_m + y_p n_p + \beta k(1 - \hat{\tau})y_m n_m] =$ $[R + (\bar{\tau}_\beta - C(\bar{\tau}_\beta))y_m n_m]/[R + (\hat{\tau} - C(\hat{\tau}))y_m n_m + y_p n_p + \beta k(1 - \hat{\tau})y_m n_m]$, by definition of $\bar{\tau}_\beta$.

Derivation with respect to β gives:

$(\bar{\tau}'_\beta(1 - C'(\bar{\tau}_\beta))y_m n_m \times [R + (\hat{\tau} - C(\hat{\tau}))y_m n_m + y_p n_p + \beta k(1 - \hat{\tau})y_m n_m] - [R + (\bar{\tau}_\beta - C(\bar{\tau}_\beta))y_m n_m] \times [\hat{\tau}'(1 - C'(\hat{\tau}))y_m n_m + k(1 - \hat{\tau})y_m n_m - \beta k \hat{\tau}' y_m n_m])/[R + (\hat{\tau} - C(\hat{\tau}))y_m n_m + y_p n_p + \beta k(1 - \hat{\tau})y_m n_m]^2$

Only the sign of the numerator matters:

$\overbrace{\bar{\tau}'_\beta(1 - C'(\bar{\tau}_\beta))y_m n_m}^{A} \times \overbrace{[R + (\hat{\tau} - C(\hat{\tau}))y_m n_m + y_p n_p + \beta k(1 - \hat{\tau})y_m n_m]}^{B} - [R + (\bar{\tau}_\beta - C(\bar{\tau}_\beta))y_m n_m] \times [\hat{\tau}'(1 - C'(\hat{\tau}))y_m n_m + k(1 - \hat{\tau})y_m n_m - \beta k \hat{\tau}' y_m n_m]$

$\bar{\tau}_\beta$ is decreasing with β, so $\bar{\tau}'_\beta < 0$. $\bar{\tau}'_\beta < \tau^*$, so $C'(\bar{\tau}_\beta < 1$. Therefore we have A<0. We obviously have B positive, so A×B is negative.

$-\underbrace{[R + (\bar{\tau}_\beta - C(\bar{\tau}_\beta))y_m n_m]}_{C} \times \underbrace{[\hat{\tau}'(1 - C'(\hat{\tau}))y_m n_m + k(1 - \hat{\tau})y_m n_m - \beta k \hat{\tau}' y_m n_m]}_{D}$

C is obviously positive. D can be rewritten:

$\hat{\tau}'(1 - C'(\hat{\tau}))y_m n_m + k(1 - \hat{\tau})y_m n_m - \beta k \hat{\tau}' y_m n_m = k(1 - \hat{\tau})y_m n_m + (1 - C'(\hat{\tau}) - \beta k)\hat{\tau}' y_m n_m$,

but by definition $C'(\hat{\tau}) = 1 - \beta k$ so $1 - C'(\hat{\tau}) - \beta k = 0$ and D is indeed equal to $k(1 - \hat{\tau})y_m n_m$, which is positive. Thus C×D is positive.

Therefore A×B-C×D is negative, so $\mu_{scapegoat}$ is decreasing in β. $\square$

2/ Derivation with respect to β for the second threshold gives:

$([-k y_m n_m] \times [R + (\hat{\tau} - C(\hat{\tau}))y_m n_m + y_p n_p + \beta k(1 - \hat{\tau})y_m n_m] - (1 - \beta k)y_m n_m \times [\hat{\tau}'(1 - C'(\hat{\tau}))y_m n_m + k(1 - \hat{\tau})y_m n_m - \beta k \hat{\tau}' y_m n_m])/[R + (\hat{\tau} - C(\hat{\tau}))y_m n_m + y_p n_p + \beta k(1 - \hat{\tau})y_m n_m]^2$

Only the sign of the numerator matters:

$$\overbrace{[-ky_mn_m] \times [R + (\hat{\tau} - C(\hat{\tau}))y_mn_m + y_pn_p + \beta k(1 - \hat{\tau})y_mn_m]}^{A} - [(1-\beta k)y_mn_m \times [\hat{\tau}'(1-$$

$$C'(\hat{\tau}))y_mn_m + k(1 - \hat{\tau})y_mn_m - \beta k\hat{\tau}'y_mn_m]]$$

The first part A is negative. We have to focus on the second part of the numerator:

$$- \underbrace{(1 - \beta k)y_mn_m}_{B} \times \underbrace{[\hat{\tau}'(1 - C'(\hat{\tau}))y_mn_m + k(1 - \hat{\tau})y_mn_m - \beta k\hat{\tau}'y_mn_m]}_{C}$$

Part B is positive and C is exactly equal to D, in the first part of the proof, so C is positive. Thus B×C is positive, so the numerator is of the form A-(B×C), thus the numerator is negative, so $\mu_{scapegoat}$ is decreasing in β. $\square$

The payoff of the political elite when is uses instrumental scapegoating is $\pi_e(V^m|\bar{\tau}_\beta, 0) = [R + (\bar{\tau}_\beta - C(\bar{\tau}_\beta))y_mn_m]/n_e$ or $\pi_e(V^m|0, \bar{t}) = (1 - \beta k)y_mn_m/n_e$. Note that if β is high enough the political elite might prefer to leave the country and get π_0 if $\pi_0 \geq [R + (\bar{\tau}_\beta - C(\bar{\tau}_\beta))y_mn_m]/n_e$ or $\pi_0 \geq (1 - \beta k)y_mn_m/n_e$.

In this case, the political elite will use the self-protective redistribution as long as $\pi_e(NV|\mu, \hat{\tau}, \hat{t}) \geq \pi_0 \Leftrightarrow \mu \geq n_e\pi_0/[R + (\hat{\tau} - C(\hat{\tau}))y_mn_m + \beta k(1 - \hat{\tau})y_mn_m + y_pn_p] \equiv \mu_{exile}$, which is decreasing with β.

Appendix C: Extension with Partial Violence

No rich ethnic minority

In case of violence against the elite, payoffs become:

$\pi_e(V_e) = (1 - \theta)R/n_e$ and $\pi_p(V_e|\mu) = (1 - \mu)(y_p + \theta R/n_p)$.

The domains uncovered in Proposition 1 are qualitatively unchanged.

We find that $\mu_{threatPV} = \theta R/(\theta R + y_pn_p) < \mu_{threat}$ and

$\mu_{exilePV} = [\pi_0 n_e - (1 - \theta)R]/(\theta R + y_pn_p) < \mu_{exile}$

Moreover, $\hat{t}_{PV} = (1 - \mu)\theta R/n_p - \mu y_p$.

Separate elites

In case of violence against the local elite, payoffs become:

$\pi_e(V_e|\tau) = (1 - \theta)[R + (\tau - C(\tau))y_mn_m]/n_e$ and

$\pi_p(V_e|\mu,\tau) = (1-\mu)\left[y_p + \theta[R + (\tau - C(\tau))y_m n_m]/n_p\right]$ with $\pi_m(V_e|\tau)$ unchanged.

In case of violence against the minority, payoffs become: $\pi_m(V_m|\tau,t) = (1-\theta)(1-\tau)y_m$ and $\pi_p(V_m|\mu,\tau,t) = (1-\mu)\left[y_p + t + \theta(1-\tau)y_m n_m/n_p\right]$ with $\pi_e(V_m|\tau,t)$ unchanged.

The domains uncovered in Proposition 2 are qualitatively unchanged.

We find that $\mu_{threat^e_{PV}} = \theta[R + (\tau^* - C(\tau^*))y_m n_m]/[\theta(R + (\tau^* - C(\tau^*))y_m n_m) + y_p n_p] < \mu_{threat^e}$ and $\mu_{threat^m_{PV}} = \theta(1-\tau^*)y_m n_m/[\theta(1-\tau^*)y_m n_m + y_p n_p] < \mu_{threat^m}$.

We find $\mu_{scapegoatPV} = ((1-\bar{\tau})y_m n_m - (1-\theta)[R + (\tau^* - C(\tau^*))y_m n_m])/(\theta[R + (\tau^* - C(\tau^*))y_m n_m] + y_p n_p)$ and $\mu_{scapegoat'PV} = [\theta(1-\tau_{V_m})y_m n_m - (1-\theta)[(\tau^* - C(\tau^*)) - (\tau_{V_m} - C(\tau_{V_m}))]y_m n_m]/(\theta[R + (\tau^* - C(\tau^*))y_m n_m] + y_p n_p)$ and we have $\mu_{scapegoatPV} < \mu_{scapegoat}$ and $\mu_{scapegoat'PV} < \mu_{scapegoat'}$.

Moreover, we have $\mu_{1PV} = \theta(1-\tau^*)y_m n_m/(\theta[R + (\tau^* - C(\tau^*))y_m n_m] + y_p n_p)$, $\mu_{2PV} = \theta(1-\bar{\tau})y_m n_m/[\theta(1-\bar{\tau})y_m n_m + y_p n_p]$ and $\mu_{2'PV} = \theta(1-\tau_{V_m})y_m n_m/(\theta[R + (\tau_{V_m} - C(\tau_{V_m}))y_m n_m] + y_p n_p)$.

We always have $\mu_{1PV} < \mu_{scapegoatPV}$, $\mu_{2PV} > \mu_{scapegoatPV}$ and $\mu_{2'PV} > \mu_{scapegoat'PV}$; while $\mu_{1PV} < \mu_{scapegoat'PV}$ for θ higher than a certain threshold.

$\hat{t}_{PV} = (1-\mu)\theta[R + (\tau^* - C(\tau^*))y_m n_m]/n_p - \mu y_p$.

One difference from the benchmark analysis is as follows. About *instrumental scapegoating*, let us define τ_{V_m} such that $C'(\tau) = 1 - \theta/(1-\theta)$.

The policy chosen is: $(\bar{\tau},0)$ if $(1-\tau_{V_m})y_m n_m \geq R + (\tau_{V_m} - C(\tau_{V_m}))y_m n_m$; and (τ_{V_m}, t_{V_m}), with $t_{V_m} = \theta[R + (\tau - C(\tau))y_m n_m - (1-\tau)y_m n_m]/n_p$ if $(1-\tau_{V_m})y_m n_m < R + (\tau_{V_m} - C(\tau_{V_m}))y_m n_m$. Note that $\tau_{V_m} \leq \tau^*$ and τ_{V_m} decreases as θ increases while t_{V_m} increases as θ increases.

Partial integration

The local elite's utility in case of violence becomes: $u_e(V_m|\tau,t) = [R - n_p t + (\tau(1 - \beta(1-\theta)) - C(\tau) + \beta(1-\theta))y_m n_m]/n_e$ and $u_e(V_e|\tau) = [(1-\theta)R + (\tau(1 - \beta - \theta) - (1-\theta)C(\tau) + \beta)y_m n_m]/n_e$, while its utility in case of peace is unaltered.

The domains uncovered in Proposition 3 are qualitatively unchanged.

We find that $\mu_{threat^e_{\beta PV}} = \theta[R + (\tau^*_\beta - C(\tau^*_\beta))y_m n_m]/[\theta(R + (\tau^*_\beta - C(\tau^*)_\beta)y_m n_m) + y_p n_p] < \mu_{threat^e_\beta}$ and $\mu_{threat^m_{\beta PV}} = \theta(1 - \tau^*_\beta)y_m n_m/[\theta(1 - \tau^*_\beta)y_m n_m + y_p n_p] < \mu_{threat^m_\beta}$.

The policy chosen for *altruistic protection* is: first $(\tilde{\tau}_{1PV}, 0)$ with $\tilde{\tau}_{1PV}$ such that $\theta(1 - \tau)y_m n_m/[\theta(1 - \tau)y_m n_m + y_p n_p] = \mu$, and then $(\tilde{\tau}_{2PV}, \tilde{t}_{2PV})$ with $\tilde{\tau}_{2PV}$ such that $C'(\tau) = \theta/\mu - \beta + (1 - \theta)$ and $\tilde{t}_{2PV} = (1/\mu - 1)\theta(1 - \tilde{\tau}_{2PV})y_m n_m/n_p - y_p$.

Note that $\tilde{\tau}_{1PV}$ and $\tilde{\tau}_{2PV}$ increase as θ increases.

The policy chosen for *self-protective redistribution* is: first $(\hat{\tau}_{1PV}, 0)$ with $\hat{\tau}_{1PV}$ such that $\theta[R + (\tau - C(\tau))y_m n_m]/(\theta[R + (\tau - C(\tau))y_m n_m] + y_p n_p) = \mu$, and then $(\hat{\tau}_{2PV}, \hat{t}_{2PV})$ with $\hat{\tau}_{2PV}$ such that $C'(\tau) = 1 - \beta/[1 - \theta(1 - \mu)]$ and
$\hat{t}_{2PV} = (1 - \mu)\theta[R + (\tau - C(\tau))y_m n_m]/n_p - \mu y_p$.

Note that $\hat{\tau}_{1PV}$ and $\hat{\tau}_{2PV}$ increase as θ increases.

The policy chosen for *no protection* and for *instrumental scapegoating* is slightly different from the benchmark. Here, the most preferred policy of the local elite in case of violence against the minority is: $(\tau^*_{\beta PV}, 0)$ with $\tau^*_{\beta PV}$ such that $C'(\tau) = 1 - \beta(1 - \theta)$. Note $\tau^*_\beta \leq \tau^*_{\beta PV} \leq \tau^*$ and $\tau^*_{\beta PV}$ increases as θ increases.

If the minority is richer after tax $\tau^*_{\beta PV}$ than the elite, they choose $(\tau^*_{\beta PV}, 0)$.

While if the minority is poorer, the local elite max $u_e(V_m)$ by choosing τ and t such that that $u_p(V_m|\mu, \tau, t) = u_p(V_e|\mu, \tau) \Leftrightarrow t_{\beta V_m} = \theta[R + (\tau - C(\tau))y_m n_m - (1 - \tau)y_m n_m]/n_p$. The constraint that $t_{\beta V_m} \geq 0$ leads to the following policy: we define $\tau_{\beta V_m}$ such that $C'(\tau) = 1 - \beta - \theta/(1 - \theta)$, which is the optimal tax rate of the local elite in case of violence against the minority after integrating the constraint $t_{\beta V_m}$ within their objective function. If $(1 - \tau_{\beta V_m})y_m n_m \geq R + (\tau_{\beta V_m} - C(\tau_{\beta V_m}))y_m n_m$, the local elite chooses $(\bar{\tau}, 0)$, while if $(1 - \tau_{\beta V_m})y_m n_m < R + (\tau_{\beta V_m} - C(\tau_{\beta V_m}))y_m n_m$, they choose $(\tau_{\beta V_m}, t_{\beta V_m})$. Note that $\tau_{\beta V_m}$ decreases as θ increases and $t_{\beta V_m}$ increases as θ increases.

The local elite may use *global protective impoverishment strategy* and we also find that for β small enough, the local elite never uses it, provided that θ is not too low.

As in the benchmark analysis, there exist thresholds $\mu_{protectPV}$ and $\mu_{scapegoat_\beta PV}$ at which the local elite decides to let the minority be attacked by the people. The impact

of θ on these thresholds is ambiguous.

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