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# Constitutions and Order: A Theory and Comparative Evidence from Colombia and the United States 

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# Constitutions and Order: A theory and comparative evidence from Colombia and the United States* 

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#### Abstract

We propose a framework to explain why some societies may end up with different constitutional solutions to the problem of maintaining order in the face of self-interested behavior. Though the salient intellectual tradition since Hobbes has focused on how institutional design is used to eradicate violence, our framework illustrates that equilibrium constitutions may in fact have to deliberately allow for violence. This arises because some societies are unable to use institutions to influence income distribution. In this case, a constitutional tolerance of violence emerges as a credible way for an incumbent to meet the participation constraint of a challenger. We illustrate the results with the comparative constitutional history of the US and Colombia.


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## 1 Introduction

A fundamental political problem in society is how to structure institutions to maintain order in the face of self-interested behavior. In this paper, we develop a model to illustrate that in cultural contexts where institutions do not work well, constitutions may have to facilitate disorder and violence explicitly to credibly transfer rents. We argue that this insight helps explain an otherwise puzzling part of the comparative constitutional histories of the United States and Colombia.

The most famous modern statement of the problem we study was Hobbes' formulation in 1651 in his book Leviathan. For Hobbes, men were given to quarrell and the natural state of affairs was one of warre, a situation of "of every man, against every man", resulting in:
continuall feare, and danger of violent death; And the life of man, solitary, poore, nasty, brutish, and short. (Hobbes, 1998, p. 84)

Hobbes' solution was to build a strong state, a Leviathan, which would end warre. He quoted the Book of Job to show what he had in mind: "There is no power on earth to be compared to him" (Job 41:33) and this power would be used to make sure that quarrell stopped. He imagined people coming together in a covenant, a constitutional process and unanimously agreeing to this. Locke (2003, p.105) amended Hobbes's vision by pointing out that self-interested rulers had to be incentivized by institutions to provide order.

This intellectual tradition heavily influenced how the British state was built after the Glorious Revolution of 1688, as well as the vision of the Founding Fathers of the United States. The constitutional process in Philadelphia, like Hobbes' covenant, built a new state with a president with independent fiscal and monetary institutions. A prime motivation for this was disorder, particularly Shay's Rebellion, which broke out in Massachusetts in 1786. When it did, the Congress, as constituted under the Articles of Confederation, realized that it did not have either the capacity or right to intervene to suppress the rebellion, which had to be dealt with by the Massachusetts militia.

The Constitution, therefore, tackled these issues head-on. It featured a Treason Clause. The first US Congress stipulated that the death penalty should be applied to punish treason. As Alexander Hamilton put it in Federalist 27:

The hope of impunity is a strong incitement to sedition; the dread of punishment, a proportionately strong discouragement to it. (Hamilton et al., 2008, p. 132)

In Federalist 28 Hamilton does recognize that "seditions and insurrections" will undoubtedly occur and that "there could be no remedy but force" (Hamilton et al., 2008, p. 134). The logic seems straightforward: a strong state is required to produce order, and it does this via incentives and punishing
those that disrupt the order (Becker, 1968). Since Hamilton wrote, the US has indeed been remarkably successful at achieving order, with the one dramatic exception of the Civil War.

This paper focuses on the radically different constitutional and penal traditions that may characterize other societies. In particular, it examines Colombia's path since the middle of the 19th century. We build a model to clarify why Colombians, though perfectly familiar with the writings of Hobbes, Locke, and the US founding fathers, took such a different path, illustrated by the following clause in the 1980 Colombian Penal Code:

Those who by use of arms attempt to overthrow the National Government, or who delete or modify the legal or constitutional regime by force, incur imprisonment from three to six years. (Colombian Penal Code, 1980, Title II. Chapter I. Article 125.)

In contrast to the death penalty stipulated in the US, in Colombia, as recently as 2004, the penalty for treason, called rebellion in Colombia, could be as little as three years. The original proposal from the commission that drafted the code in 1977 was one to six years, and the previous 1936 Penal Code stipulated penalties from six months to four years in prison.

As we show in detail in Section 3, the roots of this clause of the Penal Code can be traced to Article 91 of the 1863 Colombian Constitution, written in the town of Rionegro. The article, written by the Liberal statesman Salvador Camacho Roldán, read:

Derecho de gentes is part of the internal legislation of the United States of Colombia, and its norms will rule, especially in the cases of civil war or rebellion. Therefore, these may be finalized through treaties between belligerent sides, who must respect the humanitarian practices of civilized nations. (Colombian Constitution, 1863, Chapter XI. Article 91)

An earlier suggested version included the memorable phrase "The United States of Colombia does not recognize political crimes, just mistakes" (Convención Nacional de Rionegro, 1977, p. 275).

The concept of the derecho de gentes (law of nations) dates back to Roman times and generally stipulates a set of rights and obligations which govern inter-state relations. Colombia's innovation was to apply this to belligerents within a nation. The lenient treatment of rebellion was how respecting the "humanitarian practices of civilized nations" manifested itself in the soon-to-be-written penal codes. Rather than creating a Leviathan to keep order, Colombians preferred "treaties" and forgiveness. This clause stayed in the Constitution until 1991.

Why do some societies (as in the Colombian case) decide they have to live with disorder, rather than create a Leviathan to eliminate it? To investigate this question, we build a model. In it, there are two groups which we refer to as the Incumbent and the Challenger. Initially, the groups negotiate a constitution that explicitly stipulates how severely rebellion should be punished. Implicitly, we also
think of the constitution as determining institutional design. Our main emphasis is that the nature of some societies, with features prominent in the Colombian case discussed later, makes it extremely difficult to make credible promises by modifying institutional features.

Following the constitutional stage, an election or other contest for power occurs, and one group assumes power. We think of the Incumbent as the more politically powerful party, in the sense that it is more likely to win this contest than the Challenger. The party in power then promises some level of transfers to redistribute income. Nature then determines the distribution of income, which is adjusted using the promised transfer. Two aspects of this are essential: the income share each group expects to receive on average and the uncertainty of this distribution. We think of the expected income as capturing the anticipated distributional aspects of the constitution. For example, the US Constitution maintained the legality of slavery, which had substantial distributional consequences for Southern slave-holding elites. However, the expected income distribution is uncertain, reflecting contexts where the challenge of enforcing rules makes it difficult to implement policy and manipulate inequality via the constitution.

Whichever group loses the election can then decide whether or not to rebel. The rebellion succeeds with an exogenous probability; if it fails, the group pays the cost fixed at the constitutional stage. The two sources of uncertainty are crucial: $i$ ) over who will win the election after the constitutional stagewe call this political uncertainty; ii) over the distribution of income-this will be policy uncertainty. Higher uncertainty in the distribution of resources will reflect both the economic context and the degree to which parties expect to be able to shape institutions and policies determining the distribution of resources-i.e., there is high policy uncertainty. Since the latter source of uncertainty is more important for our historical discussion, we choose "policy uncertainty" to refer to uncertainty in the distribution of income.

We show that the constitution sets a lower cost of rebellion in three circumstances. First, when there is little political uncertainly so that power (the probability of winning the election) is skewed to one side. The cost of rebellion determines how large the transfer is: the lower the cost of rebellion, the higher the probability that it occurs, and the larger the transfer the incumbent offers to avoid it. Therefore, at the constitutional stage, offering a low cost of rebellion acts as a commitment device to promise levels of redistribution that entice the politically weaker group to participate in the constitution. Second, the higher the expected inequality of resources in favor of the more powerful political party. Lenient punishment of rebellion emerges in this case for a similar reason as with a skewed election probability. Third, the greater the uncertainty about the distribution of resources, since promised transfers may more often be insufficient and become less effective in deterring rebellion.

In essence, a low cost of rebellion emerges because the institutions are such that the Incumbent cannot commit to meeting the Challenger's participation constraint by optimizing the constitution's details. This inability reflects biased access to political power, high expected inequality, and uncertainty
about the income distribution following the constitutional design.
As discussed in Section 3, these comparative statics help us understand why Colombia diverged so far from the US. While many of the same issues arose in the US and Colombian constitutional discussions and negotiations, the outcomes differed. In the most fundamental sense, this was because of differences in the underlying institutions and norms of the two societies, which the politicians at Rionegro anticipated.

Consider the above three comparative statics. First, elections were highly corrupt in Colombia, implying a considerable likelihood that the Liberals, who set the agenda in the Rionegro constitution process, would win the subsequent presidential election, as indeed they did.

Second, there was not only a deep history of inequality in Latin America, but also the weakness of the state and the absence of solid norms of obedience to rules meant that the distribution of resources was both skewed in expectation and highly uncertain.

These parameters were different in the US. Although there certainly was electoral corruption, it was on a far smaller scale, so the electoral playing field was much more level. Inequality was much lower, the state was stronger and norms of abiding by the rules were more prevalent. These features emerged during much of the constitutional debate. In Federalist 9, for example, Hamilton discusses "The utility of the Union as a Safeguard against domestic faction and insurrection", pointing out that the key is the de jure institutional architecture. Hamilton and Madison believed that since the government was legitimate, people would obey the rules and that the "efficiency of various principles is now well understood" (Hamilton et al., 2008, p. 45). These included

> The regular distribution of power into distinct departments; the introduction of legislative balances and checks; the institution of courts composed of judges holding their offices during good behavior; the representation of the people in the legislatures by deputies of their own election. (Hamilton et al., 2008, p. 45)

As expected theoretically, reducing the penalty for rebellions made them more likely. The different constitutional arrangements may help to explain why Colombia, but not the US, has been so prone to rebellions and disorder.

An implicit assumption in our constitutional analysis is that both parties have some bargaining power. The Liberals and Conservatives who negotiated in Rionegro needed each other because neither wanted to secede, and they were trying to build a nation. ${ }^{1}$ They were just doing it in very different circumstances than Madison and Hamilton.

[^1]A key aspect of our theory is that while the constitution cannot shape the income distribution precisely, committing to low penalties for rebellion is possible. As we will see when we discuss the evidence, Colombia has managed to implement such low penalties since 1863 . We shall also see that even Colombian jurists and law professors have become acculturated to this. The way to interpret our model is that the derecho de gentes was an attempt to coordinate people onto a clear norm focused on a specific practice. This commitment is distinct from shaping the distribution of income, which depends on many instruments and circumstances that can override the intended institutional design.

The US Constitution omitted the Lockean right to rebel (even though Jefferson wrote about the need for it). Is the derecho de gentes simply this? We would argue not. The right to rebel was a last-ditch option for citizens when the constitution was malfunctioning and power was arbitrarily used. Derecho de gentes was part of the normal functioning of the constitution. Rebellion was anticipated and normalized. The low cost of rebellion was there to satisfy everyone's participation constraints, given the bias in elections and the anticipation that people would not stick to the rules. Interestingly, in their empirical work on comparative constitutional provisions, Ginsburg et al. (2012) code Colombia as never having had the Lockean right to rebel.

Our paper relates to several social science literatures. Many scholars have used related approaches to study the design of constitutions. Seminal positive analyses of constitutional design include Beard (1913), Buchanan and Tullock (1962) and a sizeable formal literature has built on these insights, for example, Weingast (1997), Laffont (2001), Cooter (2002), Barbera and Jackson (2004) and Acemoglu et al. (2008b). Many of these analyses either implicitly or explicitly emphasize commitment problems that institutions are designed to solve. The importance of these problems to organizational form was first emphasized by Williamson (1979) and Grossman and Hart (1986). Acemoglu and Robinson (2000) identify the implications for political institutions, arguing that democracy emerged as a commitment to future redistribution (see also Acemoglu and Robinson, 2006). In their model, democratization is a credible way of redistributing "power". That "power" can be redistributed to mitigate commitment problems also dates back at least to Williamson's work and Grossman and Hart's discussion of asset ownership. In our theory, lowering the cost of rebellion increases the challenger's power. The connection of commitment problems to costly conflict was pointed out by Fearon (1995) and modeled by Powell (2006), though again, it is implicit in models where conflict occurs in equilibrium as in standard contest functions (e.g. Grossman, 1991).

More broadly, a large body of research examines the causes and consequences of civil conflict theoretically and empirically (Blattman and Miguel, 2010) with Fearon and Laitin (2003) making an influential argument for the role of state capacity. In the Colombian context an extensive literature has examined the incidence and causes of civil war. While the derecho de gentes has been mentioned, for example by Orozco Abad (2006), we are the first to emphasize its centrality and use it to propose a new

Del Castillo (2018) have highlighted the serious institutional attempts to integrate Colombian territory and construct the nation in the mid nineteenth century.
explanation for why Colombia has been so civil war and violence prone. Of course our theory does not establish the extent to which the derecho de gentes causally contributed to subsequent conflict but we believe it is highly plausible that it played a significant role. González (2021) and Sánchez Gómez (2021) are authoritative overviews by Colombian scholars of theories of the Colombian conflict and see Ronderos (2014) for the persistence of violence. León (2009) illustrates the many facets of conflict. Studies have emphasized the political incentives to tolerate or directly promote violence (Sánchez Gómez and Meertens, 2001; Acemoglu et al., 2013; Fergusson et al., 2016; Steele, 2017; Fergusson, 2019). Other research has focused on the organizational behavior of armed groups Arjona (2017) and the political economy of transition out of the war (Zuckerman Daly, 2017; Matanock, 2017). An influential literature in political science has also studied the use of violence, notably Kalvas (2006) with Balcells (2017) emphasizing political mechanisms. We model violent political change without addressing the free-rider problem or what mechanisms might over come it (see the discussion in Wood (2003)).

We depart from all these studies by examining how constitutional designs may anticipate and even facilitate a conflict-prone society and the circumstances under which such a situation emerged in nineteenth century Colombia and persisted for 150 years.

The paper closest in spirit to ours is Besley and Persson (2011) who show how civil war arises in equilibrium when political institutions are non-cohesive, allowing incumbents to slant resources to themselves. They do not investigate, however, how manipulating the cost of rebellion could be part of a constitutional design process. The main difference with our paper is that we emphasize the limits of using the constitution to shape income distribution and how differences in this ability reflect fundamental differences in people's willingness to obey rules.

The paper proceeds as follows. In the next section, we develop our theoretical model. Section 3 then discusses the comparative constitutional processes in Colombia and the United States. Section 4 concludes.

## 2 Theory

We next present a model that helps understand why it might be rational for a constitution to punish rebellion lightly.

### 2.1 Setup

Two groups or parties (labeled $I$ and $C$ ) negotiate a constitution that sets the institutional limits on how hard rebellion will be punished. This decision is made under two sources of uncertainty. First, when the constitution is written, parties do not know who will hold political power. Second, the distribution
of resources is uncertain.
After parties agree on the constitution, one of them obtains political power (for example, because it wins the elections or wins some other contest to prevail politically). Once in power, the winner credibly promises some transfer $\tau$ to the loser, on the condition that he will not rebel. Then the income distribution $(\Theta Y,(1-\Theta) Y)$ is realized (total income $Y$ is normalized to 1 for simplicity). Finally, the loosing party must decide whether to settle for the income share plus transfer or rebel. Rebellion succeeds with probability $q$, granting the loser all income. If it fails, the income distribution is dictated by $\Theta$, but the rebel must pay the constitutionally-determined cost of rebellion $\kappa$.

Figure 1: Extensive form representation of the model


Notes: Payoffs are presented as a vector. Payoffs for party $I$ are displayed in the first entry, while those corresponding to party $C$ in the second.

Summarizing, the timing of the game (illustrated in extensive form in Figure 1) is as follows:

1. There is a constitutional stage where $I$ and $C$ collectively establish a rebellion cost $\kappa \geq 0$. If the negotiation fails, parties keep their reservation utilities $\left(\bar{u}^{I}, \bar{u}^{C}\right)$.
2. $I$ wins the elections with probability $p$, and $C$ with probability $1-p$.
3. The winner credibly promises a (possibly negative) transfer to the challenger (denoted by $\tau$ ).
4. The distribution of income $(\Theta, 1-\Theta)$ is realized.
5. The loser rebels or accepts the resulting income share plus transfer. If he rebels, then:

- With probability $q \in(0,1)$, rebellion succeeds and the rebel takes all income.
- With probability $1-q \in(0,1)$ rebellion fails and the rebel must pay the rebellion cost $\kappa$.

Payoffs are identical and linear in income for both parties. Without loss of generality, we suppose that $p>1 / 2$, so that $I$ is the most likely election winner or "Incumbent".

### 2.2 Solution

Solving the model via backward induction, the resulting equilibrium features the following characteristics.

### 2.2.1 Rebellion

First, we assess when rebellion occurs. Comparing utilities from rebelling and settling delivers the following optimal strategies that depend intuitively on the realized income distribution $(\Theta)$, transfers $(\tau)$, the chances that rebellion is successful ( $q$ ), and rebellion costs $(\kappa)$ :

- If $I$ wins elections, then $C$ rebels if, and only if,

$$
\Theta \geq \frac{\tau^{I}+(1-q) \kappa}{q}
$$

and settles otherwise.

- If $C$ wins elections, then $I$ rebels if, and only if,

$$
\Theta \leq 1-\frac{\tau^{C}+(1-q) \kappa}{q}
$$

and settles otherwise.

### 2.2.2 Redistribution of resources

Before $\Theta$ is known, the elected party chooses $\tau$, committing to alter the income distribution with a transfer (if $\tau>0$ ) or tax (if $\tau<0$ ) for the side that lost the election. A transfer reduces the winner's net income, but may help avoid a revolution.

Since $\Theta$ is unknown, the party in power selects transfers strategically under uncertainty to maximize his expected payoff, trading off a potential reduction in his income level against the benefit of avoiding
a costly rebellion. Uncertainty also implies that rebellion will occur in equilibrium under particularly unfavorable income realizations for the losing side.

For simplicity, we assume that $\Theta$ is commonly known to be distributed uniformly with mean $\theta$ and density $\psi$. Notice that $\psi$ is an inverse measure of the variance $\left(\operatorname{Var}(\Theta)=1 /\left(12 \psi^{2}\right)\right.$ ) or uncertainty in the distribution of resources:

$$
\Theta \sim \mathcal{U}\left(\left[\theta-\frac{1}{2 \psi}, \theta+\frac{1}{2 \psi}\right]\right), \quad \text { where } \min \{\theta, 1-\theta\}>\frac{1}{2 \psi}
$$

Using this distribution and the optimal decisions to rebel, we compute the probability of rebellion, $\mu^{j}$, when party $j \in\{I, C\}$ is in power:

$$
\mu^{I}\left(\kappa, \tau^{I}\right)=\mathbb{P}_{\Theta}\left(\Theta \geq \frac{\tau^{I}+(1-q) \kappa}{q}\right) \quad \text { and } \quad \mu^{C}\left(\kappa, \tau^{C}\right)=\mathbb{P}_{\Theta}\left(\Theta \leq \frac{\tau^{C}-(1-q) \kappa}{q}\right)
$$

Let $U_{i}^{j}\left(\kappa, \tau^{j}, \Theta\right)$ be the payoff received by party $j$ when party $i$ is in power. Now consider the expected payoffs when $I$ is in power. Following the law of iterated expectations:

$$
\begin{aligned}
\bar{U}_{I}^{j}\left(\kappa, \tau^{I}\right) & =\mathbb{E}_{\Theta}\left[U_{I}^{j}\left(\kappa, \tau^{I}, \Theta\right)\right] \\
& =\mu^{I}\left(\kappa, \tau^{I}\right) \mathbb{E}_{\Theta}\left[U_{I}^{j}\left(\kappa, \tau^{I}, \Theta\right) \left\lvert\, \Theta \geq \frac{\tau^{I}+(1-q) \kappa}{q}\right.\right] \\
& +\left[1-\mu^{I}\left(\kappa, \tau^{I}\right)\right] \mathbb{E}_{\Theta}\left[U_{I}^{j}\left(\kappa, \tau^{I}, \Theta\right) \left\lvert\, \Theta<\frac{\tau^{I}+(1-q) \kappa}{q}\right.\right] .
\end{aligned}
$$

Similarly, whenever $C$ holds political power the payoffs are:

$$
\begin{aligned}
\bar{U}_{C}^{j}\left(\kappa, \tau^{C}\right) & =\mathbb{E}_{\Theta}\left[U_{C}^{j}\left(\kappa, \tau^{C}, \Theta\right)\right] \\
& =\mu^{C}\left(\kappa, \tau^{C}\right) \mathbb{E}_{\Theta}\left[U_{C}^{j}\left(\kappa, \tau^{C}, \Theta\right) \left\lvert\, \Theta \leq 1-\frac{\tau^{C}+(1-q) \kappa}{q}\right.\right] \\
& +\left[1-\mu^{C}\left(\kappa, \tau^{C}\right)\right] \mathbb{E}_{\Theta}\left[U_{C}^{j}\left(\kappa, \tau^{C}, \Theta\right) \left\lvert\, \Theta>1-\frac{\tau^{C}+(1-q) \kappa}{q}\right.\right]
\end{aligned}
$$

Each party chooses the redistribution that maximizes their expected payoffs to determine optimal transfers:

$$
\tau_{j}^{*} \in \underset{\tau^{j}}{\arg \max } \bar{U}_{j}^{j}\left(\kappa, \tau^{j}\right)
$$

The first order conditions, summarizing the key trade-off when selecting transfers, equate the marginal benefit of a more generous transfer (reducing the probability of a rebellion, which can lead to a major income loss for the party in power when the rebellion succeeds) to the marginal cost (a reduction in income net of transfers). For instance, when $I$ is in power and omitting some arguments in $\mu^{I}(\cdot)$ and $U_{I}^{I}(\cdot)$ to simplify the notation:

$$
\underbrace{\mu^{I}\left(\tau^{I}\right) \frac{\partial}{\partial \tau^{I}}\left[\mathbb{E}_{\Theta}\left[U_{I}^{I}\left(\tau^{I}\right) \left\lvert\, \Theta \geq \frac{\tau^{I}+(1-q) \kappa}{q}\right.\right]\right]+\left[1-\mu^{I}\left(\tau^{I}\right)\right] \frac{\partial}{\partial \tau^{I}}\left[\mathbb{E}_{\Theta}\left[U_{I}^{I}\left(\tau^{I}\right) \left\lvert\, \Theta<\frac{\tau^{I}+(1-q) \kappa}{q}\right.\right]\right]}_{\text {Expected marginal loss in utility due to making transfers }}
$$

$$
=\underbrace{\frac{\partial \mu^{I}\left(\tau^{I}\right)}{\partial \tau^{I}}\left(\mathbb{E}_{\Theta}\left[U_{I}^{I}\left(\tau^{I}\right) \left\lvert\, \Theta<\frac{\tau^{I}+(1-q) \kappa}{q}\right.\right]-\mathbb{E}_{\Theta}\left[U_{I}^{I}\left(\tau^{I}\right) \left\lvert\, \Theta \geq \frac{\tau^{I}+(1-q) \kappa}{q}\right.\right]\right)}_{\text {Expected marginal gain in utility from reducing the probability of revolution }}
$$

The left hand side of the expression above captures, for a given probability of rebellion, the marginal reduction for party's $I$ utility of increasing transfers to $C$. The right hand side, corresponding to the marginal benefit of such an increase, is the product of the marginal reduction in the probability of a rebellion and the utility differential for $I$ without and with rebellion.

This discussion leads to the following proposition.

Proposition 2.1. The unique optimal transfers are

$$
\tau_{*}^{I}=q\left[\theta-\frac{1}{2 \psi}\right] ; \quad \tau_{*}^{C}=q\left[(1-\theta)-\frac{1}{2 \psi}\right]
$$

Proof. The expressions follow from direct inspection of first-order conditions. Moreover,

$$
\frac{\partial^{2} \bar{U}_{I}^{I}\left(\kappa, \tau^{I}\right)}{\partial\left(\tau^{I}\right)^{2}}=\frac{\partial^{2} \bar{U}_{C}^{C}\left(\kappa, \tau^{C}\right)}{\partial\left(\tau^{C}\right)^{2}}=-\frac{\psi}{q}<0
$$

so that any critical point is indeed a global maximizer.

Optimal transfers are positive, since $\min \{\theta, 1-\theta\}>1 / 2 \psi$, and decrease when the threat of revolution is less credible, that is, if rebellions are unlikely to succeed $(q \rightarrow 0)$. Furthermore, they would equal zero if $q=0$. Crucially, transfers are also smaller when the distribution of $\Theta$ exhibits greater variance $(\psi \rightarrow 0)$. Transfers are less effective deterrents in this case, since relatively more unequal income distributions become more likely and encourage the losing party to attempt a rebellion.

The model's symmetry implies that the equilibrium probability of revolution is the same regardless of who seizes power. More precisely:

$$
\mu^{I}\left(\tau_{I}^{*}, \kappa\right)=\mu^{C}\left(\tau_{C}^{*}, \kappa\right)=\mu^{*}(\kappa)=1-\frac{\kappa \psi(1-q)}{q}
$$

As expected, stronger punishments reduce the probability of rebellion in equilibrium, whereas no penalty at all $(\kappa=0)$ would always result in revolution. Moreover, rebellion is more frequent when it is more likely to succeed $(q \rightarrow 1)$ and when income distribution is more uncertain $(\psi \rightarrow 0)$.

Finally, for any level of punishment $\kappa$ larger than $\bar{\kappa} \equiv q /(\psi(1-q))$, the expected equilibrium probability of rebellion is 0 . Thus, for $\kappa>\bar{\kappa}$, both parties are indifferent over any $\kappa$ since their utilities no longer depend on it. Thus, we can restrict $\kappa$ to belong to the interval $[0, \bar{\kappa}]$ without loss of generality.

### 2.2.3 The Constitutional Stage

At the initial constitutional stage of the game, parties bargain over $\kappa$ under uncertainty over $\Theta$ and which party seizes power. Thus, decisions are based on expected payoffs at the time of negotiation. In particular, each party $j$ anticipates a payoff given by

$$
U^{j}(\kappa)=p \bar{U}_{I}^{j}\left(\kappa, \tau_{I}^{*}\right)+(1-p) \bar{U}_{C}^{j}\left(\kappa, \tau_{C}^{*}\right) .
$$

Combining all previous results, expected utilities are written as

$$
\begin{align*}
U^{C}(\kappa) & =\frac{\kappa^{2} \psi^{2}(1-q)^{2}+2 p q^{2}+2 \kappa p q(1-q)+2 q(1-q)(1-\theta)}{2 q}  \tag{1}\\
U^{I}(\kappa) & =\frac{\kappa^{2} \psi^{2}(1-q)^{2}+2 q^{2}(1-p)-2 \kappa(1-p) q(1-q)+2 q(1-q) \theta}{2 q} \tag{2}
\end{align*}
$$

For simplicity, we assume a simple bargaining procedure where $I$, the politically more powerful agent (recall $p>1 / 2$ ), makes a take-it-or-leave-it offer to its competitor. Our results are robust to relaxing this bargaining protocol. More specifically, we show in Appendix A. 2 that any efficient bargaining protocol placing the parties on the Pareto frontier will share the same predictions as long as party $I$ has sufficient bargaining power. This condition is both intuitive and realistic: bargaining power should be positively correlated with political power.

Considering the participation constraints, Party $C$ accepts $I$ 's offer $\kappa^{I}$ if it is better than rejecting, or:

$$
U^{C}\left(\kappa^{I}\right) \geq \bar{u}^{C} .
$$

Party $I$ is willing to make an offer if and only if it is better than not reaching an agreement:

$$
U^{I}\left(\kappa^{I}\right) \geq \bar{u}^{I}
$$

Thus, the optimal $\kappa$ results from the constrained optimization problem given by:

$$
\max _{\kappa^{I} \in[0, \bar{\kappa}]} U^{I}\left(\kappa^{I}\right)
$$

subject to:

$$
\begin{cases}U^{I}\left(\kappa^{I}\right) & \geq \bar{u}^{I} \\ U^{C}\left(\kappa^{I}\right) & \geq \bar{u}^{C}\end{cases}
$$

Theorem 2.1. Let $p>1 / 2$. Given there exists some $\kappa \in[0, \bar{\kappa}]$ such that, $U^{I}(\kappa) \geq \bar{u}^{I}$ and $U^{C}(\kappa) \geq \bar{u}^{C}$, then in the unique sub-game perfect equilibrium of the game:

- Party I offers $\kappa^{I}=\kappa^{*}$.
- Party $C$ accepts the offer $\kappa^{I}$ if $U^{C}\left(\kappa^{I}\right) \geq U^{C}\left(\kappa^{*}\right)$.
where $\kappa^{*}$ is such that
a) Party C's participation constraint holds strictly. This is, $\kappa^{*}$ is implicitly defined by

$$
U^{C}\left(\kappa^{*}\right)=\bar{u}^{C}
$$

b)

$$
\left.\frac{\partial U^{C}(\kappa)}{\partial \kappa}\right|_{\kappa=\kappa^{*}}<0 ;\left.\quad \frac{\partial U^{I}(\kappa)}{\partial \kappa}\right|_{\kappa=\kappa^{*}}>0
$$

Proof. See Appendix A. 1

Theorem 2.1 states that the optimal strategy for the incumbent is to strictly satisfy the challenger's participation constraint. Hence, $\kappa^{*}$ is set so that $C$ is indifferent between accepting the offer and not participating in the constitution.

### 2.3 Comparative statics

We now explore how changes in the environment influence the constitutional rebellion cost. Comparative static results follow directly from observing that equilibrium $\kappa$ is selected as the harshest rebellion penalty that still entices the challenger to participate in the constitution. For any parameter $\xi$, we have the following useful result, indicating that any parameter that improves the challenger's utility leads to harsher rebellion penalties: ${ }^{2}$

$$
\operatorname{sign}\left(\frac{d \kappa^{*}}{d \xi}\right)=\operatorname{sign}\left(\frac{\partial U^{C}}{\partial \xi}\right)
$$

Intuitively, any change that reduces $C$ 's utility must result in $I$ offering a more favorable $\kappa$ to commit to improving his payoff. In other words, $\kappa$ is used as a commitment device at the time of negotiation (at the cost of a higher equilibrium probability of rebellion) to persuade $C$ to participate.

We now discuss the implications of changes in expected income distribution, lopsided elections, and income uncertainty.

### 2.3.1 Expected income

Proposition 2.2. Equilibrium rebellion punishment $\kappa^{*}$, defined in Theorem 2.1, is decreasing in I's expected income. For $p>1 / 2$,

$$
\frac{\partial \kappa^{*}}{\partial \theta}<0
$$

Proof. It is enough to show that $\left.\frac{\partial U^{C}(\kappa)}{\partial \theta}\right|_{\kappa=\kappa^{*}} \leq 0$. Observe that

$$
\frac{\partial U^{C}(\kappa)}{\partial \theta}=-(1-q)<0
$$

for all $\kappa \in[0, \bar{\kappa}]$.

If $I$ expects to be richer on average, participating in the constitution is less attractive for $C$. To ensure participation, $I$ offers a lower $\kappa$. This is effective when $p>1 / 2$, since in this case $I$ holds the

[^2]political advantage while $C$ expects to be on the losing side more often, benefiting from a more lenient punishment of rebellion even though it will be costly when they hold political power and face a more rebellious opponent.

### 2.3.2 Skewed political power

Proposition 2.3. Equilibrium rebellion punishment $\kappa^{*}$, as defined in Theorem 2.1, is decreasing in I's probability of holding office. For $p>1 / 2$,

$$
\frac{\partial \kappa^{*}}{\partial p}<0
$$

Proof. It suffices to show that $\left.\frac{\partial U^{C}}{\partial p}\right|_{\kappa=\kappa^{*}} \leq 0$. Let

$$
\Xi(\kappa)=\frac{\partial U^{C}(\kappa)}{\partial p}
$$

Then $\Xi^{\prime}(\kappa)=q-(1-q) \kappa$, and $\Xi^{\prime \prime}(\kappa)=-(1-q)<0$. Thus, $\Xi(\cdot)$ is a concave function of $\kappa$ and attains its global maximum at $\hat{\kappa}=\frac{q}{(1-q)}$. Yet

$$
\Xi(\hat{\kappa})=0
$$

Which implies that

$$
\left.\frac{\partial U^{C}(\kappa)}{\partial p}\right|_{\kappa=\kappa^{*}}=\Xi\left(\kappa^{*}\right) \leq \Xi(\hat{\kappa})=0
$$

When $p \approx 1 / 2$, then $\kappa$ produces similar costs and benefits to both parties, so they are relatively indifferent about the value of $\kappa$. Instead, if $p \rightarrow 1$ or $p \rightarrow 0$, the challenger and incumbent roles are more clearly defined, and each side will have strong preferences over $\kappa$.

Focusing on the case $p>1 / 2$, an increase in $p$ has two effects. First, $I$ anticipates being on the winning side more often and prefers a larger $\kappa$ to extract more rents. Nonetheless, $C$ anticipates being in the challenger position and prefers a lower $\kappa$ to participate. Since the key determinant of equilibrium punishment is $C$ 's participation, the latter effect outweighs the former and skewed political power reduces rebellion costs. Again, a low $\kappa$ serves as commitment device for the politically strong party to guarantee the participation of the weaker party.

### 2.3.3 Income uncertainty

Proposition 2.4. Equilibrium rebellion punishment $\kappa^{*}$, as defined in Theorem 2.1, is decreasing in income uncertainty. For $p>1 / 2$,

$$
\frac{\partial \kappa^{*}}{\partial \psi}>0
$$

Proof. It is enough to show that $\left.\frac{\partial U^{C}(\kappa)}{\partial \psi}\right|_{\kappa=\kappa^{*}} \geq 0$. But

$$
\frac{\partial U^{C}(\kappa)}{\partial \psi}=\frac{\kappa^{2}(1-q)^{2}}{2 q}>0
$$

for all $\kappa \in[0, \bar{\kappa}]$.

Transfers are less effective in deterring rebellion with a noisier income distribution, reducing the incumbent party's incentives to pursue distributive policies in the first place. This hurts the challenger's expected payoff of participating in the constitution, inducing a lower $\kappa$ from $I$ to reach an agreement.

To sum up, the model provides a rationale for choosing light rebellion penalties (and having to cope with conflict as a side effect). To persuade political opponents to participate in a constitution, parties will agree to treating rebellion lightly. This will be especially so, if political power (the probability of holding office) is more skewed, if the income distribution is more skewed towards the party with more political power ( $I$ ), or if there is more uncertainty in the distribution of income. Under each of these conditions reducing rebellion penalties is a useful commitment to ensure a sufficiently high payoff to politically weaker parties to participate in the constitution.

## 3 Historical evidence

### 3.1 The Colombian solution

Colombia has been one of the world's most conflict-riven and disorderly countries in the world in the past 160 years. Similar to other Latin American nations that gained independence in the early 19th century, Colombia was rapidly engulfed in intense political upheaval. This was reflected in eight large-scale civil wars and numerous local revolts and rebellions, with an estimated death toll of up to 100,000 people (Meisel-Roca and Romero-Prieto, 2017). The political disorder persisted throughout the 20th century and reached exceptional levels, even by Latin American standards, during a period known as La Violencia (1948-1958). La Violencia is typically seen as a consequence of the
collapse of the state and the militarization of the conflict between the Conservative and Liberal parties (Oquist, 1980), and was rapidly followed by the proliferation of armed non-state actors-i.e. guerrilla, paramilitary, and self-defense groups-many of which persist today (Acemoglu et al., 2013).

This social disorder seems a natural consequence of an institutional setting with high tolerance of civil war and extensive acceptance of rebellion. In contrast to the US, the Colombian law has considered rebellion a minor crime for generations. The origin of this can be found in the 1863 Constitution. This constitution resulted from a national Convention that gathered in the city of Rionegro to reconfigure the country's institutional landscape after the end of the 5th large-scale civil war since independence. The convention decided that civil war could not be eliminated, so it had to be regulated. The way in which the participants did this was taking the legal principle of ius gentium or derecho de gentes which until then had only been applied to inter-state relations and the conduct of war, peace treaties, treatment of captives etc. between warring nations and applied it within a country to civil war. ${ }^{3}$

The connection between the derecho de gentes and the light punishments for rebellion is made explicit by the debate over the structure of the 1980 legal code which we quoted in the introduction. During the debate, jurist Bernardo Gaitán objected that:

Concerning the norm according to which there is no sanction for rebels who in the context of combat commit homicides or injure others, it is true that its origin can be traced to derecho de gentes, but I think it should not be approved by this Commission... Some 'romantic' arguments have been put forth here, but they lack the force to justify a text of this nature. (Giraldo Marín, 1981, Volume 2, p. 24)

The federal penal code of 1873 first embodied the derecho de gentes, stipulating 3 to 6 years of exile for leaders of rebellions. Exile was changed to prison in the 1890 penal code. For non-leaders however, the penalties were only $1 / 3$ as harsh, so from 1 to 2 years of exile (Bernate and Sintura, 2019). ${ }^{4}$ More importantly, derecho de gentes was invoked as a principle to negotiate peace with rebels. For example, on January 10, 1866, the state of Tolima granted amnesty to all those that participated in a rebellion led by the conservative colonel Francisco Caicedo Jurado. Later the same month, on January 31, the state of Cauca offered an equivalent amnesty to deal with a series of similar local revolts. This tool was not only used at local level. On August 23, 1867 a peace agreement explicitly evoking Article 91 of the Constitution (Otero Suárez, 2015) ended the conflict with the remaining military supporters across the entire country of Tomás Cipriano de Mosquera, the Liberal politician and warlord, who had been overthrown by the Radical faction of the Liberal party earlier that year.

That the 1863 Constitution was an innovation can be seen in Figure 2, where we plot the maximum

[^3]penalty for rebellion from the first legislation in 1837 to the 1980 penal code. In 1833 the Law against conspiracies established capital punishment for several political crimes. In 1837, the first penal code approved in the country stipulated the death penalty for rebellion (article 233).

Figure 2: Evolution of de jure Penalties in Colombia, 1837-1980
Rebellion vs Homicide


Notes: Maximum legal punishment established by the active penal code in years of prison.

Nevertheless, these severe penalties were part of an equilibrium where secession was a constant threat. In 1830 Gran Colombia broke up with the secession of Venezuela and Ecuador (and temporarily Panama) and in the 1830s and 1840s the resulting republic was plagued by other demands for autonomy or separation. Between 1860 and 1862 yet another civil war was fought between Conservatives and Liberals with the victorious Liberals ultimately drafting the new Constitution.

The first formulation of the article that included derecho de gentes in the Constitution emphasized the details of what should not happen during civil war:

The United States of Colombia does not recognize political crimes, just mistakes, so long as there are no criminal acts violating individual guarantees. When citizens in a state are in a struggle due to domestic disagreements, and forces are organized to settle the responsibilities in government matters, a state of civil war is recognized, and belligerent sides have the duty to respect the laws of war and do it along the principles recognized between civilized peoples. It is forbidden to wage a war to the death, poison or assassinate the enemy, kill prisoners, set buildings and fields on fire, rape women, or sack properties. Those committing such excesses are guilty of common crimes... (Convención Nacional de Rionegro, 1977, p.275)

The second and shorter version - proposed by Camacho Roldán - placed more emphasis on peace treaties and explicitly included rebellion. Derecho de gentes reflected the idea that civil war and rebellion, fought between "gentlemen", would carry little punishment and warring sides should be able to easily sign peace treaties.

Though the Liberals had won the civil war of 1860-1862 and dominated at Rionegro, some regions remained overwhelmingly dominated by Conservatives. Liberal politician Manuel Murillo Toro searched for an equilibrium with the Conservatives. He and subsequent Liberal presidents were also faced with implementing the 1863 Constitution and turning the derecho de gentes into specific credible policies. One part of this was penalties for rebellion which were low relative to the period prior to 1863.

It was clear to Murillo Toro and other Liberal politicians that credibly implementing derecho de gentes meant avoiding a situation where the central state was too strong militarily. This led Congress to approve a series of laws limiting the capacity of the national government to intervene in local political violence. The most salient measure was the 1867 Law on public order (Ley sobre órden público) which stated that "When in any State a fraction of the population rises up to overthrow the existing government and organize another one, the Government of the Union must observe the most strict neutrality among belligerent sides" (Law 20, 16th April, 1867, Article 1). This stopped the national government (Government of the Union) from intervening in the politics of the constituent states, no matter what happened. Murillo Toro had already set a precedent for this, when he refused to intervene as President when Conservatives overthrew the Liberal government of Antioquia in 1864 making Pedro Justo Berrío governor.

Also in 1867, legislation was passed allowing state militias, declaring that the States can have standing armies in times of peace. ${ }^{5}$ The national navy was also abolished. ${ }^{6}$ The 1863 Constitution also introduced very lax legislation with respect to guns, guaranteeing "The liberty to bear arms and ammunition, and to trade them in times of peace" (Colombian Constitution, 1863, Chapter II. Article 15)

The logic behind these measures was intensively discussed in the press at the time.
Suppose there is a rebellion against the legitimate government of a State. Given disarmament, the State is defenseless to raise an army. There is no obligation of the General Government to provide the forces for its defense; it may at its discretion deny permission to form an army, delay the arrival of support, or provide insufficient support. With any of these decisions or the opposite ones, the General Government ensures the victory of the rebellion or the legitimate Government, depending on what best serves its interests... So with disarmament, it suffices

[^4]that the government of a State is politically friendly with the Executive to ensure victory; it suffices that the government of another state be a political enemy of the Executive for the rebellious to succeed in overthrowing it. The States do not even have, in sum, the right to determine their own government. (El Mensajero, 13th January, 1867, p. 255)

This editorial brings out the logic of our model, by arguing that national governments could not be trusted to intervene in local conflicts (in the constituent states of Colombia) in disinterested ways. The only way to guard against this was to allow for states to arm and to try to stop the national state intervening militarily in their affairs. Crucially, notice the concern that the national state might choose the course of action that "best serves its interests" and favors a political friend. We interpret this concern as reflecting the fear that de jure neutral institutions will act in favor of a certain group de facto, increasing policy uncertainty and favoring the most politically powerful groups. As our model predicts, to protect against any incumbent government doing "what best serves its interests" one solution is to lower the cost of rebellion.

After 1863 the occurrence of rebellions came to be seen as a natural practice in a democratic system, where regions willingly participate in the national project in the absence of the potential intervention by the central state:
assuming that local revolutions were disturbances of the general order, and in support of this, we would mention the States of Antioquia, Magdalena, Bolivar, and Panama, which have revolutionarily changed their respective governments. Is the general order disturbed in these states? To restore it, if it has been disturbed, was the armed intervention of the national government necessary? Can't the national executive demand, in analogous cases, the peaceful organization of the new government, in accordance with the principles of the popular, elective, representative, alternative, and accountable system? (El Mensajero, 2nd January, 1867, p. 213)

Here the states re-equilibrate after revolutions without the need for potentially perverse interference of the central state.

The institutionalization of the derecho de gentes equilibrium was not seamless. After another civil war in 1885, a period known as the Regeneration took place with the Conservatives taking power and launching a centralizing project. The resulting 1886 constitution tried to adjust the balance of power between the center and the regions discussed above in the quote from El Mensajero, but it included the derecho de gentes. Further measures strengthened presidential power, such as the 1888 Ley de los Caballos, which gave power to the national executive to repress the opposition. Finally, in 1890 a new penal code increased the penalties for rebellion to between 8 and 10 years.

Nevertheless, the logic of derecho de gentes reappeared. When the Liberals returned to power after 1930, they rewrote the penal code reducing penalties for rebellion to the lowest level ever. The extent to which the logic of derecho de gentes had pervaded Colombian society is evident from the judicial
debates of the 1970 s over how to amend the 1936 code. We have seen that not everyone believed this was a good idea. But others saw the light penalties for rebellion to be perfectly rational. For example, judge Luis Enrique Romero observed

Rebellion implies absolute disagreement with a system and the understanding that change can be achieved in no other way than with armed uprising. It has been said that rebellion is the tool of the oppressed. Well, if rebellion triumphs, nothing would happen, but if the rebels are defeated, it would be excessive to punish them for the actions that are the essence of combat. (Giraldo Marín, 1981, Volume 2, p. 24)

It is quite clear from this statement that a judge, of all people, saw rebellion as a perfectly normal activity. ${ }^{7}$ Señor Jorge Enrique Gutiérrez added

Political crimes, like rebellion, must have some privileges concerning punishment...Rebels, logically, conspire, use military clothes and fake documents, violate private property, sometimes insult or slander, all as part of the armed uprising. Thus, I would consider it convenient to structure a norm specifying not to punish rebels committing punishable acts in connection with combat. (Giraldo Marín, 1981, Volume 2, p. 24)

It is worth pausing to emphasize the use of the word "norm" here. It is the notion that Colombians developed this norm which justifies our modeling assumption that while one cannot commit to a particular income distribution via constitutional engineering, it is possible to commit not to punish rebellion.

An apparent sea change in the toleration of rebellion in Colombia came in 2002 with the election of Álvaro Uribe as president with a mandate to intensify the fight against the Marxist guerillas that at the time were operating in close to one third of the country. The 2000 Penal Code and Law 890 from 2004 increased penalties:

Rebellion. Those who by use of arms to overthrow the National Government, or who delete or modify the legal or constitutional regime by force, incur imprisonment of from ninety nine (96) to a hundred sixty two (162) months and a penalty fee from a hundred thirty three point thirty three (133.33) to three (300) hundred minimum wages. (Colombian Penal Code, 2000, Title XVIII, Article 467)

Not exactly the death penalty, but more severe than the 1980 code. Interestingly, however, available data suggest that, on average, rebels remain in prison for just three years ( 36.4 months). Moreover, the large majority of rebels spend less than 50 months in prison. We plot available data on these issues in Figure 3. The data comes from INPEC, the National Penitentiary and Prison Institute. The left

[^5]panel shows the distribution of sentences for those found guilty of rebellion. The right panel shows the distribution of time that such people actually spend in prison. The mean length of sentence is 58.9 months (longer than the actual amount of time that people actually spend in prison since most are released early). Even after the change in the penal code during Uribe's government, rebellion is still lightly sentenced and punished in Colombia.

Figure 3: Sentences for rebellion
Colombia, 2008-2016


Notes: Data from INPEC. Census of individuals who had any type of detention since 2008. The left panel shows the distribution of sentences for those convicted of Rebellion. The right panel shows the distribution of time in prison for those convicted of rebellion.

Participants in the constitutional assembly, and afterwards presidents, legislators, and as we saw judges and legal scholars, did not think it was possible to build a nation and avoid secession via constitutional design. Legal rebellion emerged as part of an institutional architecture designed to satisfy the participation constraint of those likely excluded from political power. This equilibrium implied that civil war would in some circumstances arise so political elites also took steps to try to regulate warfare and minimize the costs.

### 3.2 The US solution

The same issues that arose at least since the 1863 Constitution in Colombia surfaced in the US, but the Founding Fathers solved them differently. Because they believed in the efficacy of institutions in the US, however, they did not propose solutions like the derecho de gentes. Nevertheless, two areas of discussion in the Constitutional Convention in Philadelphia clearly illustrate the different logic of the participants and what this meant for the US Constitution.

The first issue concerned the circumstances under which the federal government could intervene
militarily in states. Under the Articles of Confederation, which had governed inter-state relations before the Constitution, the national state could not intervene in the internal affairs of states. Nevertheless, during Shay's rebellion which rocked Massachusetts in 1786 and 1787, Congress had, illegally, authorized the formation of an army, though it never took the field (Klarman, 2016, p. 163) (see also Holton, 2008). As Edmund Randolph, a delegate from Virginia, observed during the constitutional debate on June 16, 1787:

Congress was intended to be a body to preserve peace among the states, and in the rebellion of Massachusetts it was found they were not authorized to use the troops of the confederation to quell it. (Farrand, 1911, Volume 1, p. 263)

On July 18, the Convention debated the provision in the powers of Congress proposing "That a Republican Constitution and its existing laws ought to be guaranteed to each State by the United States." This clause, known as the Guarantee Clause, had been part of Madison's Virginia Plan, the blueprint he proposed at the start of the Convention for a new constitution (see Wiecek, 1972). This clause centers on states' rights and the ability of the Federal Government to intervene and use force to stop a civil war. Delegates were divided on this issue (by the "General Government" the delegates meant what we would now call the Federal Government) as the following discussion at the Convention shows:

Mr. Gouverneur Morris thought the Resolution very objectionable. He should be very unwilling that such laws as exist in Rhode Island should be guaranteed.
Mr. Wilson. The object is merely to secure the States against dangerous commotions, insurrections and rebellions.
Col. Mason. If the General Government should have no right to suppress rebellions against particular States, it will be in a bad situation indeed. As Rebellions against itself originate in and assist individual States, it must remain a passive Spectator of its own subversion. (Farrand, 1911, Volume 2, p. 47)

Just as in Colombia, the partisan nature of the central state came up in Philadelphia. William Houston, a delegate from New Jersey noted that:

It may also be difficult for the General Government to decide between contending parties each of which claim the sanction of the Constitution. (Farrand, 1911, Volume 2, p. 48)

Others, such as Luther Martin from Maryland, who consistently opposed the Virginia Plan, on July 19 "was for leaving the States to suppress Rebellions themselves" (Farrand, 1911, Volume 2, p. 48). Nathaniel Gorham of Massachusetts, however, argued that if the Federal Government could not
intervene to impose order in states then it would "be compelled to remain an inactive witness of its own destruction" and if people "appeal to the sword it will then be necessary for the General Government, however difficult it may be to decide on the merits of their contest, to interpose and put an end to It" (Farrand, 1911, Volume 2, p. 48).

The delegates then debated the extent to which state legislatures or executives had to invite the intervention. Some dismissed the need, with Gouverneur Morris stating "The Executive may possibly be at the head of the Rebellion. The General Government should enforce obedience in all cases where it may be necessary". Elbridge Gerry of Massachusetts disagreed, and "was against letting loose the myrmidons of the U. States on a State without its own consent" (Farrand, 1911, Volume 2, p. 317). In the end, the final clause reflected a compromise including the condition that, for the Federal State to intervene, the State Legislature had to request it, or if it could not be convened, the Executive.

Interestingly, despite the concerns from some like Martin, Gerry and John Mercer of Virginia, in the end the participants accepted that the General Government, and in particular Congress, would likely work in a legitimate and effective way. As John Rutledge of South Carolina put it "No doubt could be entertained but that Congress had the authority if they had the means to co-operate with any State in subduing a rebellion. It was and would be involved in the nature of the thing" (Farrand, 1911, Volume 2, p. 48). Gouverneur Morris affirmed "The legislature may surely be trusted with such a power to preserve the public tranquility" (Farrand, 1911, Volume 2, p. 317). Madison revisited this issue at length in Federalist 43, especially whether the Federal Government would be biased if it intervened in a state, especially in cases where "it may be doubtful on which side justice lies." But he argued that "what better umpires could be desired... then the representatives of confederate States, not heated by the local flame?" Again, the institutions were trusted to act with "the impartiality of judges" (Hamilton et al., 2008, p. 43).

Similar arguments emerged again with the debate over Congressional control of state militias. As Klarman (2016, p. 332) puts it, people were worried that "once the national government monopolized military force, it would rule supreme and the states would be destroyed." Again there was a compromise, with the states maintaining the rights to nominate the officers in the militia along with the main counterargument that since Congress was a democratic body, it would not take steps which would excite "the universal indignation of the people" as Madison phrased it (Klarman, 2016, p. 334).

The second major relevant debate in Philadelphia was about the so-called Treason Clause of the Constitution (see Hurst (1944) for the English pre-history which involved very serious punishments). Chapin (1964) and Hurst (1971) give extensive overviews of the use of this clause, the final version of which read

Treason against the United States, shall consist only in levying War against them, or in adhering to their Enemies, giving them Aid and Comfort. No Person shall be convicted of Treason unless on the Testimony of two Witnesses to the same overt Act, or on Confession in
open Court.

Almost the entire thrust of the debate was in terms of restricting the definition of treason and reducing the ability of governments to use it as a tool to penalize their opponents. Benjamin Franklin's intervention on August 20 is typical when he said: "prosecutions for treason were generally virulent; and perjury too easily made use of against innocence" (Farrand, 1911, Volume 2, p. 348). And the adage of Montesquieu (1989) from the Spirit of the Laws that "Vagueness in the crime of high treason is enough to make the government degenerate into despotism" (p. 194) was approvingly quoted.

The constitution did not determine the punishment for treason, leaving this task to Congress. Madison suggested this near the start of the debate by questioning "why more latitude might not be left to the Legislature. It would be as safe as in the hands of State legislatures; and it was inconvenient to bar a discretion which experience might enlighten, and which might be applied to good purposes as well as be abused" (Farrand, 1911, Volume 2, p. 345).

The evidence is clear that the delegates wanted to restrict the definition of treason and, as Hurst puts it, "the limitations of the treason clause must reflect deeply held notions of individual security against official oppression" (Hurst, 1944, p. 369). In Federalist 43, for example Madison noted "As treason may be committed against the United States, the authority of the United States ought to be enabled to punish it." Nevertheless, he observed that prosecutions for treason could be abused by "violent factions" wreaking their "malignity on each other" and hence the Constitution had written the Treason Clause as "a barrier to this peculiar danger" (Hamilton et al., 2008, p. 280). In Federalist 84 Hamilton lists the formulation of the Treason Clause as evidence that a Bill of Rights is unnecessary.

Nevertheless, the delegates also seem confident to leave the determination of the penalty for treason to Congress. In the Act of April 30, 1790, Congress decided that the punishment for treason was the death penalty. So treason was tightly defined but, unlike in Colombia, it was severely punished. Pointedly, in summarizing the discussion in Philadelphia Hurst (1944, p. 369) notes about the Treason Clause debate that "The only respects in which the Convention may be said to have rejected opportunities to confine the scope of the offense were in rejecting the suggestions [that] ... participation in a civil war, between a state and the nation, be excepted." So instigating civil war was definitely counted as treason.

The image of the constitution presented in the Federalist Papers is distinct from that in Colombia. In particular, it conveys an institutional architecture which is expected to work and to resolve conflicts. Hamilton in Federalist 6, for instance, discusses the problems of wars between the states and ends by approvingly quoting the French writer de Mably as saying that while "Neighboring nations are naturally enemies of each other" nevertheless "in a confederate republic their constitution prevents the differences that neighborhood occasions". As Hamilton puts it "This passage ... points out the evil and suggests the remedy" Hamilton et al. (2008, p. 108). That is, the constitution is the solution to the potential conflicts. In Federalist 9 Hamilton discusses "The utility of the Union as a Safeguard against
domestic faction and insurrection" pointing out that the key is the de jure institutional architecture.
Rather than having to reach an equilibrium with conflict, this architecture will guarantee "the tendency of the Union to repress domestic faction and insurrection" (p. 121). Concurring, in Federalist 14 Madison stresses the "necessity of the Union ... as the conservator of peace amongst ourselves" (p. 140). Far from having to live with civil war, in the Federalists view, the institutions of the constitution will avoid it.

Hamilton and Madison did express some skepticism about institutions, famously referring to "parchment provisions" (p. 195) as those written on paper and noting that it was not obvious that such things would alter behavior or be implemented. But they persistently argued that, since the government was legitimate, people would obey it without the need for coercion and "that it will conciliate the respect and attachment of the community" (p. 203).

The different perspectives in Colombia and the US appear in other discussions. Consider the Interstate rendition clause, Article IV, Section 2, Clause 2, of the US Constitution.

A Person charged in any State with Treason, Felony, or other Crime, who shall flee from Justice, and be found in another State, shall on Demand of the executive Authority of the State from which he fled, be delivered up, to be removed to the State having Jurisdiction of the Crime

Contrast this to the relevant clause in the Rionegro Constitution, Section I, Article 11

Persons fleeing to a State after committing illegal acts against the government of another State must be sent to the interior and kept at such distance from the frontier as will prevent further acts of hostility should such action be demanded of the asylum State by the government of the other State.

Crimes, but particularly political crimes, were not to be punished and the guilty were not to be extradited if they flew to another state.

### 3.3 Comparison and relation to the model

How can we make sense of the very different choices in Colombia and the US through the lens of the comparative statics of the model?

We argue that there were two key differences between the US and Colombia: $i$ ) the US had more competitive politics (what we are calling political uncertainty), ii) In the US inequality was expected to be lower and income less noisy and it could better compensate inequalities through institutional
design and policy implementation (less policy uncertainty). Formally, this means that in the US i) $p$ was closer to $1 / 2 ; i i$ ) $\theta$ was closer to $1 / 2$ and $\psi$ was relatively large.

### 3.3.1 Political uncertainty

Consider $p$ first. Why would $p$ have been closer to $1 / 2$ in the US case?
First, in the US there were no political parties at the time that the constitution was written, which translated into a much more fluid and competitive electoral environment.

The extensive dislike of the Founding Fathers for political parties is well known. Madison referred to them as a "mortal disease," Hamilton defined them as an "avenue to tyranny," and Washington described them as a source of "frightful despotism" (Reichley, 2000, p. 18). Moreover, we know that political coalitions were poorly coordinated by the time of the Philadelphia convention. Voting groups, even at the local level, lacked formal organization, produced no platforms, attracted no permanent membership, and electioneered unsystematically, if at all (Main, 2014). This had concrete implications for electoral dynamics. From the point of view of politicians, there was a lot of uncertainty about which faction would be in power. For the voters, the nature of the contestants for power and their ideologies was unclear, making it harder to predict the outcome of elections.

In contrast, at the time of the Rionegro Convention, Colombia was completely divided by partisan affiliation. By the 1850s the Conservative and Liberal parties had well defined identities and had a clear idea of their electoral strengths, both in terms of the aggregate volume of votes as well as its distribution across regions.

Second, the US had lower levels of electoral fraud and a longer history of democratic elections.
Despite evidence of regular fraud and corruption (see Altschuler and Blumin, 2001; Bensel et al., 2004; Campbell, 2006), US elections were fairly competitive. Data by Kernell (1977), for example, suggest a fairly high turnover (i.e. percentage of incumbents replaced) in congressional elections from the 1790 s to the 1820 s, between $40 \%$ and $50 \%$. In addition, Bianco et al. (1996) provide robust evidence supporting the idea of electoral competition for the Compensation Act vote of 1816, just as Carson and Engstrom (2005) do for for the presidential election of 1824. Overall, this suggests the existence of a highly competitive political environment during the early 19th century, in which representatives were frequently held accountable for their behavior in office. As summarized by Mitchell (2020), serious claims of fraud are credible in no more than four presidential elections in the entire history of the republic.

The quantitative situation in Colombia is radically different. The political parties in Colombia were better organized and their logistical capacity to manipulate elections and engage in extensive clientelism was much higher. In particular, local elites could perfectly control the electoral outcome of their regions. As such, fraud complaints were frequent during the period. Sapismo was the expression
used to describe the manipulation of elections at local level during this period. ${ }^{8}$
In 1872, Anibal Galindo, a liberal Senator, proposed an electoral reform in the state of Cundinamarca. His view articulates the generalized dissatisfaction with the electoral practices prevalent in public opinion at the time:
if the State legislature adopts the bill that I have had the honor to present to you and that passed unanimously in the first debate, suffrage so discredited among us today because of the frauds and crimes with which it has been stained, it would reacquire, little by little, under the new regime, the prestige and respectability that it should have as the base of the democratic system. (Galindo, 1872, p. 209)

The situation persisted. A decade later, José María Samper, an influential liberal thinker, offered a similar type of description of how the public opinion perceived the electoral system. He points out another popular expression for the widespread electoral fraud during the period, "he who counts elects" (el que escruta elige):
everywhere fraud and violence ruled elections to the point of becoming a political aphorism. Hateful phrase: he who counts elects, or elects himself. Each State legislated at its discretion in matters of elections, and the entire Union was obliged to allow itself to be imposed by what was done in the States, accepting presidents, magistrates, senators, representatives, governors, and deputies who derived their jobs of the most shameful origin. Thus, suffrage, the necessary base of the Republic, was completely perverted and degraded; all power lacked legitimacy; every election was a more or less tragic comedy. (Samper, 1886, p. 318)

The level of fraud in Colombia during this period was such that politicians knew in advanced the outcome of the elections, and the opposition was often deterred from participating. ${ }^{9}$ Bushnell (1994) describes it in the following way:

During the life of the 1863 Constitution ... all the presidents of the Union were Liberals, despite the fact that Conservatism, supported by the clergy, had undoubtedly established itself in the majority force of the country. By the usual methods of fraud and violence, the Conservatives were denied access to the national executive power. (Bushnell, 1994, p. 5)

In the 1890s the situation was reversed with the Conservative party dominating and the Liberals being almost completely excluded from the legislature, see Mazzuca and Robinson (2009). In the 20th

[^6]century this trend continued and Chaves et al. (2015) document how the 1922 presidential election was decided by massive fraud. Often, anticipating fraud, the opposition party did not run a candidate in an attempt to undermine the legitimacy of the outcome.

### 3.3.2 Inequality and policy uncertainty

The evidence on the persistently higher levels of inequality in Latin America is quite clear. The seminal research is by Engerman and Sokoloff (1997) with (Dell, 2010; Bruhn and Gallego, 2012) presenting econometric evidence, which illustrated how this emerged as a consequence of colonial extractive institutions. Though there has been a debate in economic history about this, most of the evidence suggests much higher levels of inequality of assets in Latin America, particularly land (Acemoglu et al., 2008a; Edwards and Libecap, 2022), and human capital (Engerman and Sokoloff, 2005), back to the colonial period. As such, it is reasonable to expect that $\theta$ was closer to one half in the US than in Colombia.

Consider now $\psi$. Why would $\psi$ have been higher in the US than in Colombia?
In Philadelphia, and then in the Federalist Papers, there is a clear belief in the de jure institutions and the ability to predict what would happen on the basis of the rules that is not present in the Colombian case. There are several clear reasons why this was the case.

First, the process that wrote the Constitution in the US was much more democratic, inclusive, and legitimate than the process that wrote the Rionegro constitution. The Philadelphia convention included representatives from most political factions and the final document was subject to ratification in every state. The ratification process took several months of active discussion in the public opinion and implied adaptations of the final text, saliently the inclusion of the Bill of Rights. ${ }^{10}$

In contrast, the Rionegro constitution was surrounded by a large number of legitimacy concerns, both from Conservatives and Liberals. An interesting contrast is between Madison's Virginia Plan, the blueprint for a constitution presented on the opening day of the convention, and the El Pacto de la Unión. Far from a "pact", the Pacto was the document that the Mosqueristas, the followers of Tomás Cipriano de Mosquera and the most powerful faction among Liberals, unilaterally wrote after they overthrew the Conservatives in 1861. The Pacto had been the de facto constitution ever since. The Rionegro constitution was initially an attempt by the Mosqueristas to consolidate their control and legitimatize their rule. And as such, they initially made huge efforts to make the convention a rapid procedure that would leave the El Pacto de la Unión relatively unchanged. For example, Ancizar (1863, p. 5) begins his report of the Convention with a comment on the urgency that the Mosqueristas had to the legitimize El Pacto de la Unión. This is very far from the Virginia Plan which was meant as

[^7]the basis for deliberation, even though Madison obviously hoped to structure the agenda.
On the Conservative side, we have evidence that they openly rejected the Constitution. Indeed, they used to referred to it as "the notebook of Rionegro":
...[the conservatives] a few days ago maintained that they would never submit to the institutions born of the revolution, when a few days ago they called that Constitution the notebook of Rionegro and the liberals the usurpers of public power! (El Nacional, 27th March, 1867, p. 674)

Legitimacy concerns were abundant among Liberals as well. They were aware that the election of the delegates to the Convention was not truly legitimate. ${ }^{11}$ This is something that José María Samper mentions in the early 1870s. He goes back to this in the late 1880s when criticizing the Rionegro Constitution. Pointing out that any reform to the Constitution required that a Convention be called for unanimously by all the States. In his opinion, this was the result of "the fear that the victors had of a future Convention of truly elected Deputies ... The Constitution was, in reality, as a revolutionary work of a single party, an organic law of the revolution; and since disorder could never be organized, everything was left to the chance of passions and contingencies." (Samper, 1886, p. 302)

Samper (1886) further reflected:

The history of our constitutional law is, in short, the history of our revolutions, since there has not been a single one of our constitutions, whether national or of the states that ultimately made up the Colombian union, that has not been the immediate fruit of a successful revolution or insurrection; or that, when peacefully discussed and issued, has not served as a pretext for a subsequent insurrection. (Samper, 1886, p. 6)

Overall, there was an extensive perception that the Rionegro constitution was not the result of a truly legitimate process. Therefore, every political faction expected a feeble commitment to the rules, making it very difficult for the institutions to credibly distribute resources in the way the US constitution did.

Second, the US state, both at the Federal and state level, had more capacity than either analogous level of the Colombian state. As such, it was expected to be more able to implement policies that were chosen and enforce the institutional design of the constitution (Novak and Pincus, 2018).

Data by O'Reilly and Murphy (2022) incorporate a vector of information relevant for assessing this. This includes information on the rule of law, the authority of the state over its territory, the rigorousness

[^8]and impartiality of public administration, whether public expenditures were particularistic rather than public goods, the modernity of the state's source of its revenue, and the universality of the provision of education. This data suggests that the US was among the five polities with the highest state capacity in the world in 1789. In contrast, Colombia was among the five polities with the lowest state capacity in 1863.

The literature on the fiscal history of Colombia also supports the idea that it had considerably less capacity (see Deas, 1982; Kalmanovitz and López, 2019). The Colombian state was precariously funded until the early 20th century and its capacity to implement specific policies was quite limited, as the repeated failures of infrastructure plans proved. These plans included infamous initiatives such as several interrupted attempts to build inter-oceanic connections in the Panama Isthmus and roads and railways which were intended to, but never did, cross the Andes. More importantly, however, the incapacity of the Colombian state was reflected in the average infrastructure project. By the end of the 19th century, only Ecuador and Haiti had fewer km of railroads built per capita in Latin America than Colombia (Meisel-Roca et al., 2016).

Third, all of this fed a long tradition of civil disregard of law and authority-which authors like Villegas (2011) still describe as prevalent in Latin American culture. This tradition can be traced back to Colonial times when the norm of "obedezco pero no cumplo" (I obey, but I do no comply) became established in the relationship between the colonies and the Spanish crown. The complaints of Viceroy Eslava to his superiors in 1743, regarding how Nueva Granada, the colony which was to become Colombia, "was virtually ungovernable" illustrates the difficulties to implement policies in the context of a society where disobedience was the norm. He noted that "each one of these provinces... needs its own viceroy, and each Audiencia a supreme council to examine the conduct of ministers" (McFarlane, 1993, p. 199). This situation was very different from the type of cooperative trusting high social capital equilibrium depicted in the United States by de Tocqueville, for example.

Overall, compared with the US, Colombian politicians were not only faced with far higher levels of inequality, but they functioned in an environment with little commitment to particular sets of institutions, a weak state, and a general antipathy to obeying rules. All these circumstances made the derecho de gentes an attractive solution to the problems of building a nation.

It is worth emphasizing that this happened in a situation where Colombian intellectuals and politicians were well aware of US institutions and debates. For instance, Justo Arosemena, one of Panama's delegates at Rionegro, explicitly argued that in the case of the Reconstruction Act, "according to which the states that rebelled in 1860 are kept out of the Union and governed militarily" the institutional architecture, in particular the way the US Supreme Court operated, had failed to guarantee the sovereignty of the states. According to Arosemena, it was obvious that the law was unconstitutional, but the Court had failed to rule this because of the way cases had to be brought to the court. He observed
it is not clear why the Supreme Court of a federation should not have the explicit power to make such a declaration even when no particular controversy arises where the law is to be applied. The necessity may be great and urgent, as seen in the aforementioned case, of a law completely opposed to the fundamental institutions of the United States, which nobody recognizes the power to convert ten states into conquered territory, suppressing their civilian governments and subjecting them to a military dictatorship, unless they enshrine in their constitutions certain principles that have not been deemed obligatory until now. (Arosemena, 1870, p. 102)

If the institutions of the United States could not protect the constitutional autonomy of the ten states after the Civil War, how could they do so in Colombia? Indeed, he continues
[The Constitution] grants it [the Supreme Court] the power to decide the issues that arise between the states of the Union and the general government regarding the competence of powers, and that is precisely the issue raised when it is alleged that an act of Congress or the national executive power is contrary to the sovereignty of the states. However, this attribution, like its equivalent in the 1858 Constitution, has had the unfortunate fate of going unnoticed, like a medicinal plant hidden in the heart of a forest. (Arosemena, 1870, p. 102)

Institutional solutions were like medicinal plants "hidden in the heart of a forest". The solution was the derecho de gentes.

## 4 Conclusion

A long intellectual tradition in political theory and political economy suggests that the institutional formation of modern states has at its roots the incentives to reach a situation in which political violence is avoided and social order is achieved. From that perspective, institutional design is fundamentally intended to generate social order and avoid political violence.

In contrast to that tradition, and motivated by the comparative constitutional history of Colombia and the United States, we explore a situation in which institutional design, from its inception, explicitly tolerated political violence and social disorder. This situation emerges in a context in which no political actor can use institutions to commit to meet the participation constraints of the other actors by optimizing the details of the constitution. We develop a model that formalizes this intuition, emphasizing two sources of uncertainty: the uncertainty of which actor will eventually win the elections and assume power, and uncertainty about the distribution of income a constitutional design will deliver.

We compare the constitutional debates of the United States in Philadelphia and those of Colombia in Rionegro to illustrate the validity of the model. In both cases, the problem of social order and political violence was discussed in an almost identical manner by skillful and well-informed politicians. However, the skewed distribution of political power in the Colombian context, and its high policy uncertainty, led the convention to embrace a legal formulation that tolerated political violence, while the opposite happened in the US. We consider that there are reasons to expect that this institutional design choice had profound implications in the long-term path of both societies. In fact, as the model predicts, Colombia was plagued by civil wars and violence while the US was not, with the exception of the Civil War. Our analysis brings to the fore the necessity of seeing constitutional design in the socio-economic and cultural context.

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## A Appendix

## A. 1 Proof of Theorem 2.1

We begin with a useful proposition:

Proposition A.1. Utilities' derivatives satisfy the following relationship

$$
\begin{equation*}
\frac{\partial U^{I}(\kappa)}{\partial \kappa}=(2 p-1)(1-q)+\frac{\partial U^{C}(\kappa)}{\partial \kappa} \tag{3}
\end{equation*}
$$

Proof. From (1) and (2) we have that for all $\kappa$

$$
\begin{equation*}
U^{I}(\kappa)-U^{C}(\kappa)=\kappa(1-q)(2 p-1)+q[2(1-\theta)-p]+(2 \theta-1) \tag{4}
\end{equation*}
$$

Thus

$$
\frac{\partial U^{I}(\kappa)}{\partial \kappa}=(2 p-1)(1-q)+\frac{\partial U^{C}(\kappa)}{\partial \kappa}
$$

Next, we continue to prove the main result:

Proof. To determine the optimal offer, we must find a solution to:

$$
\max _{\kappa^{I} \in[0, \bar{\kappa}]} U^{I}\left(\kappa^{I}\right)
$$

subject to:

$$
\begin{cases}U^{I}\left(\kappa^{I}\right) & \geq \bar{u}^{I} \\ U^{C}\left(\kappa^{I}\right) & \geq \bar{u}^{C}\end{cases}
$$

Let $S$ be the feasible solution set

$$
S=\left\{\kappa \in[0, \bar{\kappa}]: U^{I}(\kappa) \geq \bar{u}^{I}\right\} \cap\left\{\kappa \in[0, \bar{\kappa}]: U^{C}(\kappa) \geq \bar{u}^{C}\right\}
$$

Since the $U^{j}(\cdot)$ are continuous, then $S$ is compact (closed and bounded) and non-empty due to our hypothesis. Therefore, we know a global maximum exists since $U^{I}\left(\kappa^{I}\right)$ is continuous. Let $\kappa^{*}$ be such optimum. The Lagrangian associated to the problem is

$$
\mathcal{L}(\kappa)=U^{I}(\kappa)+\lambda\left[U^{C}(\kappa)-\bar{u}^{C}\right]+\eta\left[U^{I}(\kappa)-\bar{u}^{I}\right]
$$

Following the Karush-Kuhn-Tucker conditions and Slater condition, $\kappa^{*}$ must satisfy:

$$
\left\{\begin{array}{l}
\left.(1+\eta) \frac{\partial U^{I}(\kappa)}{\partial \kappa}\right|_{\kappa=\kappa^{*}}+\left.\lambda \frac{\partial U^{C}(\kappa)}{\partial \kappa}\right|_{\kappa=\kappa^{*}}=0 \\
U^{C}\left(\kappa^{*}\right) \geq \bar{u}^{C} \\
U^{I}\left(\kappa^{*}\right) \geq \bar{u}^{I} \\
\lambda\left[U^{C}\left(\kappa^{*}\right)-\bar{u}^{C}\right]=0 \\
\eta\left[U^{I}\left(\kappa^{*}\right)-\bar{u}^{I}\right]=0 \\
\lambda, \eta \geq 0
\end{array}\right.
$$

So we must have that

$$
\lambda=-\left.\frac{(1+\eta) \frac{\partial U^{C}(\kappa)}{\partial K}}{\frac{\partial U^{I}(\kappa)}{\partial K}}\right|_{\kappa=\kappa^{*}}
$$

However, dual feasibility requires $\lambda \geq 0$, so the signs of the derivatives must be opposite. Assume for the sake of contradiction that

$$
\left.\frac{\partial U^{C}(\kappa)}{\partial \kappa}\right|_{\kappa=\kappa^{*}} \geq 0
$$

It would then follow from Proposition A. 1 that

$$
\frac{\partial U^{I}(\kappa)}{\partial \kappa}=(2 p-1)(1-q)+\frac{\partial U^{C}(\kappa)}{\partial \kappa} \geq(2 p-1)(1-q)>0
$$

which would result in contradiction. Therefore, necessarily

$$
\left.\frac{\partial U^{C}(\kappa)}{\partial \kappa}\right|_{\kappa=\kappa^{*}}<0
$$

and also

$$
\left.\frac{\partial U^{I}(\kappa)}{\partial \kappa}\right|_{\kappa=\kappa^{*}}>0
$$

Hence, $\lambda>0$, from which we can conclude, using complementary slackness, that $\kappa^{*}$ is defined by

$$
U^{C}\left(\kappa^{*}\right)=\bar{u}^{C}
$$

## A. 2 Robustness: relaxing bargaining-power assumptions

The main text assumes a simple bargaining protocol in the Constitutional stage giving all bargaining power to the politically powerful party, $I$. The resulting optimal solution brings $C$ down to his participation constraint, and all comparative static results follow from such condition.

In this section, we demonstrate that the model's predictions hold for more general bargaining procedures, so long as the politically powerful party has sufficient bargaining power, a condition that is theoretically and empirically appealing. Suppose in particular that the chosen $\kappa$ emerges from some efficient bargaining procedure that maximizes the weighted average of utilities:

$$
\max _{\kappa \in[\underline{k}, \bar{\kappa}]} W_{\alpha}(\kappa)=\alpha U^{C}(\kappa)+(1-\alpha) U^{I}(\kappa)
$$

subject to:

$$
\begin{cases}U^{I}\left(\kappa^{I}\right) & \geq \bar{u}^{I} \\ U^{C}\left(\kappa^{I}\right) & \geq \bar{u}^{C}\end{cases}
$$

Then $\alpha \in[0,1]$ captures the bargaining weights for each party. For instance, when $I$ holds all bargaining power ( $\alpha=0$ ), the problem reduces to the baseline model in the text.

Two important results follow, described in the following propositions. First, depending on the weights, the chosen $\kappa$ strictly satisfies either party's $I$ or party's $C$ participation constraint. Second, there exists a weight $\alpha^{*} \in[0,1]$ such that if $\alpha^{*}>\alpha$, then $\kappa$ is determined by $C$ 's participation constraint.

Proposition A.2. At least one of the restrictions is binding for every $\alpha \in[0,1]$.
Proof. Let $\kappa^{*}$ be the maximizer of the problem. The associated Lagrangian to the problem is:

$$
\mathcal{L}(\kappa)=\alpha U^{C}(\kappa)+(1-\alpha) U^{I}(\kappa)+\eta\left[U^{I}(\kappa)-\bar{u}^{I}\right]+\lambda\left[U^{C}\left(\kappa^{I}\right)-\bar{u}^{C}\right]
$$

Following Karush-Kuhn-Tucker conditions then $\kappa^{*}$ must satisfy:

$$
\left\{\begin{array}{l}
{\left.[\alpha+\eta] \frac{\partial U^{C}(\kappa)}{\partial \kappa}\right|_{\kappa=\kappa^{*}}+\left.[(1-\alpha)+\lambda] \frac{\partial U^{I}(\kappa)}{\partial \kappa}\right|_{\kappa=\kappa^{*}}=0} \\
U^{C}\left(\kappa^{*}\right) \geq \bar{u}^{C} \\
U^{I}\left(\kappa^{*}\right) \geq \bar{u}^{I} \\
\lambda\left[U^{I}\left(\kappa^{*}\right)-\bar{u}^{I}\right]=0 \\
\eta\left[U^{C}\left(\kappa^{*}\right)-\bar{u}^{C}\right]=0 \\
\lambda, \eta \geq 0
\end{array}\right.
$$

For the sake of contradiction, suppose that $(\eta, \lambda)=(0,0)$, this is, both restrictions are inactive. Then $\kappa^{*}$ is a critical point of $W_{\alpha}(\kappa)$. But

$$
\frac{\partial^{2} W_{\alpha}(\kappa)}{\partial \kappa^{2}}=\frac{\psi(1-q)^{2}}{q}>0
$$

Thus, $\kappa^{*}$ would be a global minimum, which is a contradiction. Hence at least $\eta$ or $\lambda$ must be strictly positive.

Proposition A.3. There exists an $\alpha \in[0,1]$ such that C's restriction is active if $\alpha \leq \alpha^{*}$ and I's restriction is active if $\alpha>\alpha^{*}$

Proof. Since $\kappa^{*}$ is implicitly defined by either restriction, then $\kappa^{*}$ does not depend on $\alpha$.
We also know from the KKT conditions that

$$
\eta=-\left.\frac{[(1-\alpha)+\lambda] \frac{\partial U^{I}}{\partial \kappa}}{\frac{\partial U^{C}}{\partial \kappa}}\right|_{\kappa=\kappa^{*}}-\alpha
$$

From dual feasibility, we know that $\eta \geq 0$, this is

$$
-\left.\frac{[(1-\alpha)+\lambda] \frac{\partial U^{I}}{\partial \kappa}}{\frac{\partial U^{C}}{\partial \kappa}}\right|_{\kappa=\kappa^{*}} \geq 0
$$

Hence, an identical argument to the one used in Theorem 2.1's proof yields that

$$
\left.\frac{\partial U^{C}(\kappa)}{\partial \kappa}\right|_{\kappa=\kappa^{*}}<0 ;\left.\quad \frac{\partial U^{I}(\kappa)}{\partial \kappa}\right|_{\kappa=\kappa^{*}}>0
$$

Now from equation (4), we have that

$$
\eta=-[(1-\alpha)+\lambda]\left(\left.\frac{(2 p-1)(1-q)}{\frac{\partial U^{C}(\kappa)}{\partial \kappa}}\right|_{\kappa=\kappa^{*}}+1\right)-\alpha
$$

And thus,

$$
\frac{\partial \eta}{\partial \alpha}= \begin{cases}\alpha\left(\left.\frac{(2 p-1)(1-q)}{\frac{\partial U^{C}(\kappa)}{\partial \kappa}}\right|_{\kappa=\kappa^{*}}+1\right)-1 & \text { if } \eta>0 \\ 0 & \text { if } \eta=0\end{cases}
$$

But notice that

$$
\left.\alpha \frac{(2 p-1)(1-q)}{\frac{\partial U^{C}(\kappa)}{\partial K}}\right|_{\kappa=\kappa^{*}}-(1-\alpha)<0
$$

which means that $\eta$ is a non-increasing function.
We further know that when $\alpha=1$, we have the problem where $C$ offers to $I$, in which case $\eta>0$. Similarly, when $\alpha=0$, we have the problem in which $I$ offers to $C$ and $\eta=0$. Thus, and since $\eta$ is a continuous function of $\alpha$, it follows from the intermediate value theorem that there exists a unique $\alpha^{*} \in(0,1]$ such that

$$
\eta= \begin{cases}>0 & \text { if } \alpha<\alpha^{*} \\ =0 & \text { if } \alpha \geq \alpha^{*}\end{cases}
$$

And also, by the last proposition, then necessarily

$$
\lambda= \begin{cases}=0 & \text { if } \alpha<\alpha^{*}, \\ >0 & \text { if } \alpha \geq \alpha^{*}\end{cases}
$$

Besides demonstrating that our results hold when $I$ has sufficient bargaining power and $C$ 's participation is the main constraint, the previous results also imply that otherwise (for instance, if $C$ makes the take-it-or-leave-it offer) I's participation constraint holds strictly. In such case, the comparative statics depend on how the parameter changes impact $I$ 's utility. The predictions for $p$ remain the same: an increase in $p$ improves $I$ 's payoff so $C$ can persuade $I$ 's participation with a lower $\kappa$. Instead, the predictions for $\psi$ and $\theta$ are opposite to those when the participation of $C$ is the main
concern: a decrease in uncertainty (increase in $\psi$ ) or increase in $I$ 's expected income (increase in $\theta$ ) also improve $I$ 's payoff, reducing equilibrium $\kappa$.


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[^1]:    ${ }^{1}$ Though this succession is not part of our model it obviously shaped the US constitutional negotiations and it did so in Colombia too. As Camilo Antonio Echeverri, a delegate to the conference in Rionegro from Antioquia put it "If what we do does not suit any State, let it separate, let it truncate and mutilate the Republic."(Echeverri, 1863, p. 16). This is why it was so important to meet the participation constraint. Recent research by historians, particularly Appelbaum (2016) and

[^2]:    ${ }^{2}$ Since $\kappa^{*}$ is defined by $U^{C}\left(\kappa^{*}\right)=\bar{u}^{C}$, using implicit differentiation

    $$
    \frac{d \kappa^{*}}{d \xi}=-\left.\frac{\frac{\partial U^{c}}{\partial \xi}}{\frac{d U^{c}}{d \kappa}}\right|_{\kappa=\kappa^{*}}
    $$

    Recalling from Theorem 2.1 that $\left.\frac{d U^{C}}{d \kappa}\right|_{\kappa=\kappa^{*}}<0$, the result follows.

[^3]:    ${ }^{3}$ This usage had been anticipated by the Chilean legal scholar Andrés Bello (see Bello, 1844).
    ${ }^{4}$ Prior to this code the individual states passed their own penal codes with different punishments for rebellion. Cundinamarca: 12 years prison + being declared infamous $+1 / 10$ of wealth in fees. Antioquia (1867): 5-6 years prison $+1 / 3$ of wealth in fees. Panama (1869): 2-8 years exile + up to $1 / 10$ of wealth in fees. Bolivar (1872): 6-10 years prison.

[^4]:    ${ }^{5}$ Ley reconociendo a los Estados la facultad constitucional de mantener fuerza armada en tiempo de paz (Law 6, 12nd March, 1867).
    ${ }^{6}$ Decreto que elimina la marina de guerra de la Unión (Law 88, 5th April, 1867).

[^5]:    ${ }^{7}$ Notice that none of the people involved in the discussion of this penal code were radical intellectuals. They were legal scholars well-regarded in traditional circles. For example, Gutiérrez was a professor at Universidad Javeriana, a Catholic university, for several years. Both Romero and Gutiérrez eventually became judges of the Supreme Court.

[^6]:    ${ }^{8}$ Sapismo emerged as a concept in the politics of Cundinamarca, but it was eventually used to referred to this phenomenon nation-wide.
    ${ }^{9}$ See Posada-Carbó (2000) for a broad overview of electoral fraud in Latin America during this period.

[^7]:    ${ }^{10}$ The partial exception, of course, in Rhode Island that reluctantly ratified the constitution after the first congress had already met.

[^8]:    ${ }^{11}$ In theory, the delegates were freely elected following the same state laws for electing Senators, but in practice only Liberals ended up being part of the convention.

