Unrecognized States: A Theory of Self-Determination and Foreign Influence

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Abstract

The persistence of unrecognized states as territorial units is both intellectually puzzling and normatively problematic. Unrecognized are characterized by stagnant or crumbling economies and instability on their borders, often serve as havens for illicit trade, and challenge the territorial sovereignty of recognized states. Nonetheless, unrecognized statehood can be a remarkably stable outcome, persisting for decades. This paper uses a four player, game theoretic framework to examine the mechanisms that sustain these stalemates and leverages this model to explore paths to settlement. Unrecognized statehood emerges as an equilibrium outcome because a patron state persistently invests resources to sustain this outcome: we show, counterintuitively, patrons will make these investments even when unrecognized statehood is not their most preferred outcome. We assess comparative statics from the model to explore options available to actors in the international community who seek to impose their preferred outcomes in these disputes.
Introduction

South Ossetia is an archetypical unrecognized state – characteristic of those regions of the world in which non-state actors control territory and govern populations. From 1990 to 1992, Ossetian rebels fought a successful secessionist civil war against the Georgian government that ended with a ceasefire and left the rebels in *de facto* control of much of the region of South Ossetia, which sits along Georgia’s northern border with Russia. In the 18 years since the ceasefire was signed, South Ossetia has functioned as an unrecognized state, governing its own affairs but unrecognized by foreign nations.\(^1\) The Georgian government maintains its claim to the territory of South Ossetia, while the South Ossetians continue to seek international recognition of their independence. In 2004, the Georgian government began intermittent efforts to close trade with the separatist region, and in 2008, following escalating provocations from the Ossetian side, Georgia attempted to reclaim the territory by military force. Russian troops acting in support of the Ossetians quickly crushed the would-be reconquest, and the status quo was restored.

Persistent unrecognized statehood is both intellectually puzzling and normatively undesirable. It is an extremely costly outcome for the secessionists, the home states from which they are attempting to secede, and the international community more broadly. Nonetheless, some unrecognized states have persisted for decades. Despite the existence of half a dozen current unrecognized states either past or coming up on their 20th year in existence,\(^2\) much of the existing literature treats unrecognized statehood as either a transient phenomenon or simply as a failure to reach some other outcome (i.e. recognized statehood). We argue that unrecognized

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\(^1\)South Ossetia, along with Abkhazia, was recognized by Russia and Nicaragua in 2008, Venezuela and Nauru in 2009, and Tuvalu in 2011.

\(^2\)Abkhazia, Ngorno-Karabakh, Transnistria, Somaliland, South Ossetia, and the Turkish Republic of Northern Cyprus clearly count here, some scholars would include additional cases in the list.
statehood is an important outcome in its own right, and one that is potentially extremely stable over time.

Unrecognized statehood is a thorn in the side of the state system. Many unrecognized states are havens for smuggling and trafficking illicit goods, they are prone to violent conflict, and their very existence challenges the norm of territorial sovereignty (King 2001; Stanislawski 2008). Like most unrecognized states, South Ossetia pays high costs for non-recognition. Its political survival is tenuous, its licit economy is in shambles after years of isolation and instability, and yet, if the history of similar entities are any guide, its chances of eventual recognition are slim. Stalemate imposes similar, though less severe, costs on home states (e.g. Georgia) as well.

The purpose of this paper is to identify the mechanisms that sustain unrecognized statehood as a stable equilibrium and to evaluate potential strategies through which actors may stabilize this equilibrium, or disrupt it by inducing war or negotiated settlement. While there are many game theoretic treatments of civil conflict, we believe ours is the first formal model in which unrecognized statehood is addressed as an outcome. We develop a novel, four-player model that focuses on the core conflict between the home state and the secessionist elite, but also incorporates the actions of outside states with interests in the outcome. These outside actors are a patron, which prefers independence to reunification, and a fourth player we denote as player $c$, which prefers reunification to independence – a preference held by many members of the international community.

One counter-intuitive result from the model is that, in equilibrium, a patron will expend resources every period to sustain the status quo of unrecognized statehood even when the patron would prefer that the secessionists achieved recognized independence. We also show that other members of the international community
(player c) are capable of intervening to overcome the influence of the patron and induce settlement if they are sufficiently motivated to do so. Here our results are relevant for policy: we leverage comparative statics from the model to show that the enforcement of bargains and the granting of positive inducements for settlement, rather than direct pressure on the unrecognized state via sanctions, represents the most constructive means by which outside states can induce negotiated reunification. Sanctions have been the more common tactics in practice, but our model suggests they increase the probability of war.

We begin the paper by briefly discussing the current literature on unrecognized states and then our model. Next, we analyze the conditions under which different outcomes, including unrecognized statehood, emerge as equilibria. Finally we evaluate the policy implications of the model, assessing various strategies available to outside actors that seek to induce their preferred outcomes.

**Unrecognized States in the Literature**

We define unrecognized states as territories in which a non-state actor controls territory, governs a population, and seeks but has not received broad recognition as an independent state.\(^3\) While unrecognized statehood may emerge in other circumstances (particularly related to decolonization), we model what we view as an archetypical case where unrecognized statehood emerges from attempted secession.

Political scientists care a great deal about both civil conflict and about state formation, but unrecognized states do not sit neatly in either literature. The literature on civil war is focused primarily on war onset (e.g. Fearon and Laitin 2003; Hegre and Sambanis 2006), war intensity and duration (e.g. Collier and Hoeffler 2004; 3This definition would exclude, for example, the territories governed by FARC in Colombia because FARC does not seek recognized statehood.
Cunningham 2006), and the durability of post-conflict peace (e.g. Hartzell, Hoddie and Rothchild 2001). Unrecognized statehood does not fit neatly into these areas of study because, while unrecognized states begin, and often end, through violent conflict, periods of unrecognized statehood generally contain little, if any, fighting. Unrecognized statehood often represents a relatively stable end to civil war, but the cessation of fighting is not coterminous with resolution of the conflict in any meaningful way. We argue that persistent unrecognized statehood is not a successful resolution to secessionist civil war, it is a costly and normatively bad outcome in its own right, and it needs to be analyzed as such.

Unrecognized states also fall outside most treatments of state formation, because most unrecognized states never achieve recognition (or have not achieved it yet). For example, Roeder (2007) undertakes a detailed analysis of the path to recognized statehood, but in his analysis unrecognized states represent failures to gain recognized statehood, not outcomes to be analyzed in their own right.

The first literature to address unrecognized states directly was grounded in comparative politics, and a robust area-studies literature exists around each of the current cases of unrecognized statehood. More recent literature has addressed wider ranges of cases and made important conceptual progress identifying patterns and commonalities across cases (Pegg 1998; Kolstø 2006; GeldenHuys 2009; Caspersen and Stansfield 2011; Caspersen 2012). However, the literature continues to lack a clear general theory specifying the conditions under which this outcome emerges and persists. One of the major contributions of this article is to provide a unified analytic framework for understanding the mechanisms sustaining unrecognized statehood as a stable equilibrium. By modeling unrecognized statehood formally,
we move away from a case-by-case treatment toward development of a rigorous general theory. Analysis of comparative statics within the model allows us to assess the conditions under which unrecognized statehood persists, and those under which war and negotiated settlement occur. It also allows us to evaluate various strategies available to actors, particularly states and coalitions of states who want to facilitate a peaceful and permanent resolution.

Non-Recognition and Its Costs

Unrecognized statehood is a particularly compelling outcome from secession in part because while the secessionists have succeeded in securing control of (most of) the territory they aspire to rule they are not recognized by most other states, trapping them in a costly limbo. Unrecognized states are subject to high costs of non-recognition generated by an international system extremely hostile to non-state territorial units. The modern state system is based on institutions designed to facilitate peaceful and economically beneficial relations between like actors, and on the empowerment and legitimation of states through mutual recognition (Spruyt 1996). The norm challenged most directly by unrecognized states is that which, in the post-WWII era, has become most fundamental to it – the norm of territorial sovereignty. Almost all states have reason to fear the emergence of secessionist movements within their own borders, and a state system that places seceding entities at an extreme disadvantage lowers the expected benefits of secession, and thereby makes secession less likely.\(^5\) The higher the costs of secession, the greater the security of existing states.

\(^5\)Coggins (2011: 451) notes that, "The more acute the domestic threat, the more the reticence to recognize."
of states refusing to recognize a seceding entity unless the home state recognizes it first. This norm is not absolute: in some cases, like the People’s Republic of China, the sovereignty of the home state government (over Taiwan) has never been recognized by some states. In other cases, like Kosovo, the commission of mass atrocities by the home state government may supersede its sovereignty. However, the norm is strong and gives recognition by the home state its significance: without recognition by the home state, the post-WWII norm is for other states is to withhold recognition as well. Abkhazia, Ngorno-Karabakh, Transnistria, Somaliland, South Ossetia, and the Turkish Republic of Northern Cyprus have all controlled territory for over a decade without gaining recognition by more than four other states.

This norm of home-state veto locks unrecognized states out of a states-only club whose members enjoy benefits in terms of both security and economic integration. For recognized states, the norm of territorial integrity lowers the cost of territorial defense by increasing the chance that foreign powers will intervene against, or at least sanction, an invader. Recognition also allows entry into multilateral and bilateral trade agreements, dramatically bolsters access to foreign aid, and incorporates territory into international legal frameworks that make it easier to secure foreign investment (Milhalkanian (2004); Caspersen 2012: 40-45). In their most direct form – loans and foreign aid – these benefits are referred to as “rents to sovereignty” (Collier and Hoeffler 2005).

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6For a thorough international legal discussion of the issue, see Crawford 2006.
7Caspersen (2012) traces the history of collective non-recognition, which begins after WWI and solidifies after WWII. In terms of the model presented below, the payoff from territorial control before WWI was equivalent to the payoff from recognized statehood. Players did not need to participate in the game described in the model. We limit our discussion to the post-WWII era, when the norm of home state veto is fully developed.
8See Zacher (2001) on the norm of territorial integrity.
9Transnistria represents a case where the gains from smuggling, particularly for the elite, may have outweighed these other economic costs in the 1990s (King 2001). However, as Moldova deepens ties with the EU, Transnistria’s lack of access to EU markets and EU aid becomes a much larger relative cost to bear (Tudoroiu 2011).
Most unrecognized states are low income countries, and the costs of non-recognition grow over time as their economies further decay. Because the resources of unrecognized state governments are primarily focused on security, unrecognized states are generally characterized by a lack of public investment in infrastructure and education. They also face severe brain drain, and a lack of private investment caused by the absence of security and restrictions on trade.

Non-settlement has costs for the home state as well, but they are simply not as high as those facing the unrecognized state. Instability in the border region and the diversion of military resources to monitor the de facto border are costly, as is maintenance of economic sanctions against the unrecognized state. In Azerbaijan, where an oil boom sent GDP soaring in the mid-2000s, the unresolved secessionist conflict in Nagorno-Karabakh lead a massive military buildup to take precedence over other government spending.\footnote{Military spending increased 51% in 2004-2005, and went up another 82% in 2006 (International Crisis Group 2007)} Foreign investors may be more wary of investing in states that do not effectively control their own territory, and there are diplomatic costs as well. For Georgia, failure to resolve its outstanding secessionist conflicts has hindered progress toward NATO accession.

A Model of Unrecognized Statehood

We model a dispute over a piece of territory that is controlled by a secessionist group and also claimed by a home state. The central issue of contention, independence vs. reunification, is both difficult to divide and highly valued by both sides. The secessionists seek recognized statehood, the home state seeks reunification, and these demands do not vary over time. The side payments that can be offered in exchange for the opponent’s surrender of the independence/reunification issue...
are sharply limited by the absence of large concessions that can credibly be made (Walter 1997, 2002; Schultz 2010).

One of the major innovations of our model is the introduction of international actors in a four-player format. While the role of outside actors in determining the duration and outcome of civil conflicts is well documented (e.g., Elbadawi and Sambanis 2000; Regan 2002; Balch-Lindsay, Enterline, and Joyce 2008), the role of these actors has not been prominent in the formal literature.\textsuperscript{11} This is true even of work that addresses the role of outside actors as potential third-party enforcers (Walter 1997, 2002).

The formal model presented here serves a heuristic purpose in articulating the mechanisms that create these persistent stalemates, but it also allows us to examine some comparative statics and thereby assess the consequences, intended and otherwise, of different players’ attempts to foster their desired outcome.\textsuperscript{12}

There are four players in this model: the secessionist elite ($s$); the central government of the home state ($g$) from which $s$ is attempting to secede; and two other players, $p$ and $c$, which are other states (or groups of states acting in concert) that have interests in the outcome of the attempted secession. We will refer to $p$ as the patron. $p$ prefers recognized independence over reunification, partially aligning its interests with the secessionists. Conversely, $c$ prefers reunification to recognized independence - a preference that is common to most states, and especially among those that fear the prospect of secessionist movements within their own borders.

The game begins at the status quo, archetypical of the condition when a militarily successful war of secession ends in a ceasefire. The secessionist elite controls at least some of the disputed territory, but cannot gain international recognition

\textsuperscript{11}One exception is van Houten (1998), who models the patron state (“reference state”) as a player in ethnic conflicts but otherwise takes an approach quite different from ours.

\textsuperscript{12}For another example of the strategic manipulation of decision-makers into (and out of) conflict see Sjostrom and Baliga (2010).
unless the central government cedes its claim to the territory.

The payoffs functions and all parameters, including probabilities in the war lottery, are common knowledge for all players, and actions are immediately observed by all players at the time they occur. There are an infinite number of periods in the game, with play proceeding until an absorbing state is reached. In each period, play proceeds as follows:

1. $p$ chooses a level of resource expenditure for that period, $R$, where $R_{pn} \in \mathbb{R}^+$. 
2. $c$ chooses a level of resource expenditure for that period, $R$, where $R_{cn} \in \mathbb{R}^+$. 
3. $s$ and $g$ play a stage game in which each choose simultaneously from the following options: \{\text{fight, cede, status quo}\}

Stage game payoffs for players $\in \{s, g\}$ in round $n$ are:

$$
\begin{array}{|c|c|c|c|}
\hline
& \text{Fight} & \text{Status Quo} & \text{Cede} \\
\hline
\text{Cede} & L_{gn}, W_{sn} & L_{gn}, W_{sn} & Q_{gn}, Q_{sn} \\
\hline
\text{Status Quo} & \Omega_n & Q_{gn}, Q_{sn} & W_{gn}, L_{sn} \\
\hline
\text{Fight} & \Omega_n & \Omega_n & W_{gn}, L_{sn} \\
\hline
\end{array}
$$

\textit{Figure 1: Stage Game Payoffs}

If either $s$ or $g$ plays \textit{cede}, the game enters an absorbing state (i.e. the game ends), with payoffs in every subsequent period given by the corresponding entry in the stage game (Figure 1). We interpret one player ceding as that player ceding the issue of status (independence vs. reunification) in exchange for some set of (relatively small) payments from the opposing player. For example, if the secessionists cede, the secessionist region is reunified with the home state and the payoffs of are $L_s$ for the secessionists losing and $W_g$ for the home state winning. Therefore, if one player agrees to cede while the other player chooses status quo or fight, the result is a negotiated settlement benefitting the player who did not cede.
If, for some reason, both states simultaneously play cede, we assume that they renege immediately and that the status quo is preserved for that round. In this case neither player has demonstrated a willingness to give up more than the other. Therefore, payoffs for both players ceding simultaneously are identical to the status quo payoffs.\footnote{This assumption is appropriate as precise simultaneity is an artifact of discrete time modeling: it is not a phenomenon we observe in the real world.}

There are three possible ways to end up in war: that either of the parties attacks first, or that both attack simultaneously. We denote the payoffs of war as a lottery $\Omega$.\footnote{Because the unrecognized state already controls territory and the de facto borders are armed, there is likely only a small advantage to be gained by attacking first for either side. Therefore, we argue it is not essential to differentiate between these war scenarios analytically.} This lottery determines one of three potential outcomes: outright victory by either of the players, which are both absorbing states, and an indecisive war where costs of war are borne but then the game returns to the status quo. Outright victory would, among other things, allow an unrecognized state to force recognition by the home state government. Therefore, outright victory requires more than simply securing control of the disputed territory (which the secessionists have already done when the game begins) and requires the ability to impose the terms of settlement.

For probabilities $p_1$ of outright victory, $p_2$ of loss and $1 - p_1 - p_2$ of non-decisive war, player $i \in \{p, c\}$ in period $n$ with a fixed cost of war $\zeta_i$ faces war lottery $\omega_{in} \equiv (p_1(W_{in} - \zeta_i), p_2(L_{in} - \zeta_i), 1 - p_1 - p_2(Q_{in} - \zeta_i))$. $\Omega_n \equiv (\omega_{gn}, \omega_{sn})$.\footnote{Baseline costs of war are fixed ($\zeta_i$) but additional costs of war based on war’s result are captured in $W_i$ and $L_i$.} Players are assumed to approach war lotteries as expected values (i.e. they are risk neutral).

If both $s$ and $g$ play Status Quo, then the status quo persists. The status quo payoffs and payoffs to fighting for the secessionists are modeled as steadily declining, due to the costs of non-recognition discussed in the previous section. As the economy in the secessionist region deteriorates, so does the standard of living.
for the secessionists and their military capabilities. In the absence of other actions, 
\[ Q_{sn} = Q_{sn+1} + \mu / 2 \] and \[ \omega_{sn} = \omega_{sn+1} + \mu / 2. \] Other payoffs remain unchanged from period to period unless affected by the actions of players \( p \) or \( c \).

\[ \footnote{Essential results do not depend on these periodic payoff decreases of military and status quo being equal to each other; they are equal here only for simplicity of presentation.} \]
Figure 2: Timeline
At the start of each round, the patron, \( p \), and player \( c \) may invest resources to affect the payoffs of \( s \) and \( g \) in the stage game. It is possible for both \( p \) and \( c \) to alter payoffs for the status quo, ceding, and war. For example, if \( p \) wants to make the status quo better for \( s \), \( p \) can invest \( R_p \) in economic aid, causing the payoff to \( s \) for the status quo to rise to \( Q_s + \gamma R_p \). Alternatively, \( p \) might contribute \( R_s \) in military aid to \( s \), increasing \( s \)'s payoffs from war by \( \gamma R_s \).

\( X \) is a binary variable representing reunification (\( X = 0 \) in the status quo and \( X = 1 \) if the secessionists rejoin the home state). \( Y \) is a binary variable representing recognition by the home state of the secessionists’ independence (\( Y = 1 \) if the home state recognizes the secessionists as independent, \( Y = 0 \) otherwise). These two binary variables allow us to reflect the preferences among the three outcomes (status quo, reunification, recognition by the home state) for both \( p \) and \( c \). The patron prefers recognized independence so \( \lambda \) is positive. Player \( c \) is averse to the creation of new states so \( \nu \) is negative. The patron opposes reunification while player \( c \) prefers it, so \( \alpha \) is negative and \( \beta \) is positive.

The set of payoffs for player \( p \) in period \( n \) \( = U_{pn} = \alpha X + \lambda Y - R_p \), while the payoffs for player \( c \) \( = U_{cn} = \beta X + \nu Y - R_c \), with both payoffs denoted in currency units.

Future payoffs are discounted with parameter \( \delta \), where \( 1/\delta \) is player \( i \)'s discount rate for \( i \in (g,s,c,p) \), \( 0 \leq \delta \leq 1 \). Therefore payoffs for the entire game for player \( i \in \{s,g,p,c\} \) can be expressed by the discounted stream of payments \( \sum_{n=1}^{\infty} U_{in}\delta^{n-1} \).

The game has three outcomes that we will consider, each of which can be characterized by a class of equilibria. The outcome of greatest interest is both players choosing the status quo in perpetuity; we will also examine the two absorbing
states, reunification and recognition by the home state (i.e. recognized statehood).\textsuperscript{17}

**Players p and c**

We refer to $p$ as the patron because, in the status quo equilibrium, $p$ contributes economic and military resources to the unrecognized state. Patrons choose to contribute resources to secessionists for one or more of several reasons: 1) As an efficient mechanism for imposing costs on the home state (Salehyan, Gleditsch and Cunningham 2012), e.g. as Russia does to Georgia via South Ossetia and Abkhazia; 2) ethnic solidarity with the secessionists (e.g. Turkey’s support of the Turkish Republic of Northern Cyprus); 3) hope of eventual annexation of the disputed territory (e.g. Armenia’s support of Nagorno-Karabakh). While annexation is appealing to many patrons (and some unrecognized states), annexation is not an outcome we observe in any historical cases post-WWII, and not an outcome we model.\textsuperscript{18} We acknowledge that there may exist patrons whose most-preferred outcome is the status quo ($\lambda < 0$). This naturally makes a status quo equilibrium easier to achieve, as there is an actor who strictly prefers the status quo and can expend resources to make it more likely. We choose to examine the case where the patron’s most preferred outcome is independence ($\lambda > 0$) and no actor strictly prefers the status quo. These are the conditions under which the status quo is least likely, yet we will show that even under these conditions the status quo remains an equilibrium outcome.

Player $c$ is simply a state or coalition of states that prefers reunification to independence and that prefers peace to war. As discussed in the section on non-

\textsuperscript{17}Other classes of equilibria are possible, for example it is theoretically possible for the players to agree to a lottery between the absorbing states which would yield a higher expected payoff than the status quo. However, in practice there is a credibility issue: the losing party does not have an incentive to cede if they lose the lottery. Such strategies are, in any case, not analyzed here.

\textsuperscript{18}International norms against irredentism are very strong, and the costs of annexing an unrecognized state appear to be very large (e.g. Zacher 2001).
recognition, most states in the international system prefer any given secessionist conflict to be resolved by reunification. In practice we believe that in most cases there are many states that may act as player $c$ in our model, and often we observe groups of states like the OECD or the UN acting in this capacity. For simplicity and generality, we limit our modeling of $c$’s preference for peace to the assumption that $c$ will not choose to fund a military buildup that it expects will induce war. This assumption is not necessary for the basic results to hold; however, it justifies our decision later in the paper not to address military support of armed reconquest by the home state as a deliberate strategy by $c$ to achieve reunification.

The relative strengths of the patron and player $c$’s preferences over the outcome determine their willingness to spend resources. The patron prefers recognized independence to the status quo, but $c$ has an aversion to creating new states. Likewise $c$ prefers resolution by reunification, but this is a bad outcome for the patron. As we will show, unrecognized statehood emerges as an unhappy but stable middle ground in which all players avoid their least preferred outcomes.

**Analysis of the Status Quo Outcome**

Unrecognized states are frequently viewed as temporary phenomena or as non-equilibrium outcomes attributable to players’ misperceptions of the strategic situation, or their fundamental irrationality. One of the important things we establish in this paper is that unrecognized statehood is an equilibrium outcome capable of being sustained in perpetuity by fully rational, perfectly informed actors. This is true even when there is no actor that prefers unrecognized statehood as a first-best outcome.

*Theorem:* An equilibrium including perpetual unrecognized statehood exists.
Sufficient conditions for persistent nonrecognition to be on an equilibrium path are stated here, with the associated lemmas and proofs in the appendix.\textsuperscript{19}

1. For both players \( g \) and \( s \), \( Q_i \geq L_i \), which states that remaining in the status quo forever is better than ceding.

2. For both players \( g \) and \( s \), \( \frac{Q_i}{1-\delta_i} \geq -\zeta_i + \frac{(L_i(p_2) + W_i(p_1) + Q_i(1-p_1-p_2))\delta_i}{1-\delta_i} \), which states that the expected outcome under war is worse than the status quo.

3. \( \frac{-\nu}{1-\delta_c} \geq \frac{\lambda+\mu}{1-\delta_p} \), which states that a two-state outcome is more important for player \( c \) to avoid than for the patron to achieve.

4. \( \frac{-\alpha-\mu}{1-\delta_p} \geq \frac{\beta}{1-\delta_c} \), which states that a single-state outcome is more important for the patron to avoid than for player \( c \) to achieve.

5. \( \forall n, B_{pn} \geq \mu \), which states that the patron can afford to pay to maintain the status quo in every period.

6. \( \forall n, B_{p(n+1)} \geq \frac{\beta}{1-\delta_c} + \mu \), which states that the patron can afford to deter player \( c \) from inducing reunification.\textsuperscript{20}

There are many other potential equilibria, including, under the right parameters, potentially immediate ceding by either party as well as fighting. But given this above set of six sufficient conditions, at least one status quo equilibrium, as outlined here, will exist.

\textsuperscript{19}These conditions for the status quo are sufficient but not necessary. For example, if the status quo has a much higher long term payoff than the next best alternative for the secessionists, condition (5) need not be met to maintain the status quo in the short run; it conditions will be necessary in the long run because the secessionist payoffs from the status quo decrease over time. In cases where condition (5) is not met, we can have unrecognized statehood for some time, but it is not an equilibrium outcome.

\textsuperscript{20}Depending on parameters, only condition (6) would tend to be binding while (5) is more likely to be redundant. If there is great variance in budget between periods for the patron, such as a greatly increased budget in period \( n+1 \) as compared to period \( n \), (5) would be binding.
The actions in the status quo equilibrium as outlined above are for \( p \) to maintain the status quo by paying \( \gamma \mu \) each period; for \( c \) to pay nothing and for both \( g \) and \( s \) to play *Status Quo* each period. By contributing \( \mu \) (at the cost of \( \gamma \mu \)) in each round, the patron supplies sufficient resources to the unrecognized state to ensure two things: first, that the secessionist elite prefers the status quo to surrendering independence and that they will continue to prefer this even if \( c \) were to offer significant payments for a concession. Second, that the unrecognized state is sufficiently militarily imposing to deter potential attack from the home state.

This is counter-intuitive behavior, but it is behavior we frequently observe in practice. A patron state whose preferred outcome is recognized independence for the secessionists, nonetheless contributes resources in every period to sustain a status-quo outcome that is costly to all involved. The patron does not attempt to contribute sufficient resources to allow the secessionists to achieve outright military victory (and force recognition by the home state) because doing so would induce offsetting expenditures by \( c \) to prevent this outcome (see Condition 3 above).

Despite its high costs, this equilibrium is extremely stable. Because player \( c \) and the patron can adjust contributions to reflect changing conditions on the ground, exogenous shocks that might otherwise have the potential to alter the equilibrium have their strategic impact nullified. For example, while a drought in the unrecognized state might decrease the secessionist elite’s payoffs from the status quo and increase their need for international trade and assistance, additional humanitarian and economic assistance from the patron offsets the effects of the shock and preserves the status quo. Likewise, if the home state gains military strength, altering the probabilities in the war lottery, the patron can offset these changes by providing arms or otherwise investing in the defenses of the unrecognized state.
Strategies for Outside Actors

It is useful to look more specifically at how spending by the patron and player c can alter the game’s payoffs, and potentially its outcomes. By analyzing comparative statics in the normal form game, we can evaluate the different strategies through which these players pursue their desired outcomes and the conditions under which they might be successful.

Let us first consider what occurs if the patron supplies the secessionists with weapons or other military support, changing the expected payoffs from war. This would make war more appealing to the secessionist elite and less appealing to the central government, deterring attempts at reconquest. At a certain point, if the central government (and c) do not invest in the home state military to counteract this support, due either to their preferences or budget constraint, the expected payoff of war for the secessionists can surpass the status quo payoff, and the secessionists would have the incentives to fight:\(^\text{21}\)

<table>
<thead>
<tr>
<th>g ↓, s</th>
<th>Fight</th>
<th>Status Quo</th>
<th>Cede</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cede</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Status Quo</td>
<td>(↓), (↑)</td>
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<tr>
<td>Fight</td>
<td>(↓), (↑)</td>
<td>(↓), (↑)</td>
<td></td>
</tr>
</tbody>
</table>

Figure 2: Additional Military Support to the Secessionists

Alternatively, the patron state may supply humanitarian support (such as providing passports to citizens of the unrecognized state or funding schools), making the status quo more appealing and stable:

\(^\text{21}\)Arrows indicate the direction of change in payoffs due to the outside action. A blank cell or "-" indicates no change.
Similarly, $c$ can contribute resources to make ceding more likely by either party. However, because $c$ generally prefers reunification to independence, these resources are most likely to be committed to encouraging ceding by the secessionist elite (reunification), instead of ceding by the home state (recognition).

Changes in payoffs can be made either by carrots or by sticks. In one option $c$ provides the secessionist elite with positive inducements, like aid, in exchange for rejoining the home state. $c$ may also expend resources to make payments by the home state, such as various autonomy rights, more credible. The effect is the same: for a price, $c$ can increase the secessionists’ payoffs from ceding.

In the other option, $c$ joins the home state in enforcing economic sanctions against the unrecognized state, lowering the secessionists’ payoffs from the status quo, and altering the probabilities in the war lottery in favor of the home state. Note that this may be particularly effective if $c$ is a large coalition of states acting in concert. Unfortunately, while the intended effect of sanctions is to reduce the unrecognized state’s expected payoffs from the status quo, sanctions also raise the central
government’s payoffs from war and reduce the secessionists’ payoffs from ceding. When the home state collaborates with c to enforce sanctions and impose economic suffering on the residents of the secessionist region, this has the unintended consequence of increasing the hostility of the secessionists toward reunification: people rarely wish to be governed by a regime that has demonstrated a willingness to use tools of coercion against them. The stronger the secessionists’ preference against reunification, the lower the payoffs from ceding. Therefore, the effect of sanctions on the unrecognized state’s strategy is ambiguous. The effect of sanctions on the home state’s strategic considerations is clear cut. By weakening the unrecognized state militarily, sanctions increase the home state’s expected payoffs from war, making a war initiated by the home state more likely.\textsuperscript{22}

<table>
<thead>
<tr>
<th>$g \downarrow, s \rightarrow$</th>
<th>Fight</th>
<th>Status Quo</th>
<th>Cede</th>
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\textit{Figure 5: Economic Sanctions by the Home State and Player c}

Despite this potential for perverse effects, sanctions are a common tool of outside actors (c), more common than aid and other positive inducements. A flow payment of carrots, even backed by the promises of an outside actor, may not be credible in the eyes of the secessionists, which could explain the frequent resort to sticks.

It is important to note that not every force exerted on the situation will lead to a change in strategy. Only if a knife-edge condition exists or if a large enough investments is made to overcome a buffer will the perturbations of payoffs lead to a change in the actions of the decision makers. Some situations very much

\textsuperscript{22}Arrows, even if in the same direction, do not necessarily represent the same magnitudes of change across cells.
favor the status quo because of relatively high status quo payoffs compared to the alternatives. These situations are hard to perturb even if significant pressures are exerted from the outside players. The stability of the game can be amplified by strong preferences of both $p$ and $c$ which lead them to contribute rather than allow their least-preferred outcome.

**Outside Interactions Between the Patron and $c$**

The game that we model, with the control of the unrecognized state at stake, is only one of several strategic games in which the patron and $c$ may be interacting at any given time, and linkages between games are possible. We do not model any direct exchange of resources or imposition of harm between $c$ and the patron, but we take the implications of these possible outside interactions seriously. The willingness and ability of either party to contribute resources within the game we model may be affected by their interaction with one another in other contexts. As we will discuss in greater detail below, in a number of cases a patron has withdrawn support for an unrecognized state in response to pressure exerted by actors in the international community ($c$) in other venues.

**The Low Payoffs from Ceding**

The payoffs for the party that cedes the issue of status (independence vs. reunification) are low. This reflects a combination of two factors. First, the issue of status is indivisible and highly valued by each side, making its surrender undesirable. Various forms of ethno-nationalism often motivate secession, and the values attached to independence by secessionists (or to reunification by citizens of the home state) are generally large relative to the values placed on economic prosperity and other
goals. Second, many of the payments that could be offered are not credible (e.g. Schultz 2010). We consider status indivisible because either the unrecognized state has sovereignty over its territory and is co-equal with the home state, or the secessionist region (and its government) are subordinate to the central government.

The difficulty of making credible payments in exchange for status is one clearly demonstrated in the civil war literature (e.g. Licklider 1995; Walter 1997, 2002; Fearon and Laitin 2007; Doyle and Sambanis 2006). Unrecognized states generally constitute “sons of the soil” conflicts in which the central government cannot credibly commit to preserving the local demographic and political dominance of the secessionist elite once the disputed territory reverts to central government control (Weimer 1978; Fearon 2004). While the central government might initially grant the secessionist elite a high level of autonomy in exchange for agreeing to reunification, the level of autonomy is likely to decrease over time, perhaps quite quickly. Reference to the cases of Abkhazia and Gagauzia are informative here.

At the time of secession, ethnic Akhaz made up a minority of the population of Abkhazia, but by the late 1990s they controlled almost all political posts in the de facto government of the region (Cornell 2001; Wooleh 2006). In 2004, the basket of payments offered by the Georgians in exchange for reunification included a provision guaranteeing that ethnic Abkhaz would retain a majority in the regional parliament, even if the return of internally displaced persons (IDPs) once again placed ethnic Abkhaz in a minority demographic position in the region. The promise, however, was not very meaningful. First, even if the promise were upheld, it would still mean a step back from the total dominance the ethnic Abkhaz currently enjoy in the region. Second, if Georgian IDPs returned, they may demand and receive a more equitable system of representation. These concerns are not abstract; this type of reneging has already occurred in cases that did reach settlement.
Gagauzia achieved de facto independence at the time of the Soviet Union’s collapse, but agreed to rejoin Moldova in 1994 as an autonomous region. While Gagauzia was granted substantial autonomy under the Moldovan Law on the Special Legal Status of Gagauzia, when the governor of Gagauzia, Dmitrii Croiter, moved to assert these powers in 1999, the Moldovan government balked. By 2002, Croiter was forced to resign, effectively deposed by the Moldovan government. The Moldovan government jailed a number of other Gagauz politicians, and while Gagauz autonomy was enshrined in the Moldovan constitution in 2003, the de facto level of autonomy has been limited by continued by central government meddling in less-than-free regional elections.\footnote{Roper (2002) argues that secessionists in Transnistria are wary of negotiated reunification precisely because of the creeping re-centralization they have observed in Gagauzia. Protsyk (2010) provides an updated account of the “salami tactics” by which Moldovan authorities have gradually reclaimed powers originally granted to the regional government.} The payoffs to Gagauzia for ceding have turned out to be quite low, and a similar fate can rationally be expected by other unrecognized states who choose to cede.

The payments that can be offered by the unrecognized state to the central government are similarly small or unenforceable. To return to the Abkhaz example: Under a scenario in which Georgia recognizes Abkhazia as an independent state, the ethnically Georgian region of Gali, currently under Abkhaz control, would likely rejoin Georgia, Russian troops would be (at least temporarily) expelled, and compensation might be paid to displaced Georgians, but other side payments are difficult to picture. Abkhazia might promise Georgia privileged access to Abkhaz ports, or promise to keep Russian troops out of its territory permanently, but once recognition is granted, any such promises could easily be reneged upon.

Furthermore, while relinquishing territorial claims relieves the home state of a persistent source of instability, conceivably supplementing g’s payoffs from ceding, it also would increase the probability of future attempts at secession by other
regions (Walter 2006). The lack of enforceable side payments and the ambiguous impact on stability make ceding the issue of status a low-payoff option for \( g \), just as it is for \( s \).

Among the means through which \( p \) or \( c \) can spend resources to alter the payoffs to \( g \) and \( s \) is to enforce bargains and guarantee future concessions by either party, raising the payoffs from ceding. For example, if both the home state and the secessionists prefer reunification with autonomy rights to both war and continued stalemate, \( c \) can spend resources to enforce an agreement in which the secessionists are promised specific autonomy rights and \( c \) agrees to ensure that these rights are later retained. Should the home state later attempt to revoke the promised autonomy, \( c \) can levee sanctions or employ other coercive measures to deter this action. The promises and pitfalls of this approach are discussed in the section on policy implications of the model.

**Introducing Uncertainty**

The assumption of perfect information may be somewhat unrealistic, and here we explore adjusting the model to accommodate some uncertainty on the part of \( c \) and \( p \). Payoffs as described in the stage game are those perceived by \( g \) and \( s \). If these payoff values are not precisely known by \( c \) and \( p \), enough uncertainty may be present in order for both those players to contribute resources in equilibrium.

Mathematically, \( c \) and \( p \) observe a random draw of the stage game payoffs, with each payoff drawn independently and with a mean matching the original stage game payoffs. After viewing these (uncertain) payoffs, \( c \) and \( p \) each invest some level of resources, altering the payoff structure before it is observed (accurately) by \( s \) and \( g \). Based on this altered payoff structure, \( c \) and \( g \) choose their strategies. Uncertainty can lead to outcomes where either \( c \) or \( p \) invests too much, wastes re-
sources, or makes a more severe misstep, such as \( p \) investing too little and allowing reunification to occur.

In practice we expect that uncertainty is lower for the patron than for \( c \) because the patron is close to, and intimately involved in, the conflict and therefore may have a better grasp of the two players’ payoffs than do other outside states or groups. This makes over-contribution by \( c \) more likely than under-contribution by the patron.

Full information on all sides implies that one of the parties would, in equilibrium, not give any resources. By adding some uncertainty about payoffs, we can account for the observed fact that \( c \) sometimes expends resources unsuccessfully. This type of spending can also be explained as non-strategic spending – i.e. spending aimed at goals other than promoting settlement, like pure humanitarianism.

**Partial Recognition**

The norm of home state veto gives recognition by the home state its significance: recognition by the home state is the core demand of the secessionists in our model. In cases where the secessionists can gain recognition from a large number of states without first gaining recognition by the home state, the status quo is a less costly outcome for the secessionists. This increases the patience of the secessionists. In the model, if the payoffs to the secessionist leaders for the status quo rise, the equilibrium decision by the secessionist elite to play "status quo" becomes more stable. Less support from a patron is needed and deterioration of conditions for the unrecognized state does not immediately disrupt the status quo equilibrium. Because the home state is aware of this payoff change, it may realize that holding out is less likely to be fruitful – reabsorption of the secessionists by the home state is less likely to occur through the secessionists ceding. Additionally, if the international
community’s preferences shift toward protection of the secessionists following mass atrocity crimes, expected payoffs from a military conflict would decrease for the home state. It is possible that the status quo payoffs are lowered for the home state as well, due to lack of support for its cause by the international community. If these dynamics lead to a sufficiently low home state payoff for both status quo and war, the home state will cede.

With the official adoption of the Responsibility to Protect doctrine by the United Nations and the precedent of Kosovo, home states are put on notice that the commission of mass atrocity crimes against the residents of seceding entities may lead to recognition of that entity by other countries. However, the norm of home state veto remains strong, and so long as further atrocities are not committed, the Responsibility to Protect doctrine is unlikely to affect recognition of the unrecognized states already in existence.

If the Patron Withdraws Support

Support by a foreign patron is, in almost all cases, necessary for the persistence of unrecognized statehood (Kolsto2006; Caspersen 2012). When there is no patron, or when the patron withdraws its support, military reconquest by the home state is likely. The only unrecognized state currently in existence which has been able to survive without a patron is Somaliland, which has been able to survive as long as it has because of the extreme weakness of the home state (Somalia).

In the model, \( g \) or \( s \) has an incentive to fight rather than stay in the status quo if the expected discounted stream of payoffs is greater by fighting. Specifically, if condition (2) for the status quo equilibrium is not met, then one player will prefer war to both ceding and the status quo. In the case of most prolonged stalemates,

\[ ^{24} \text{For a discussion of the sanction theory of recognition, see Berlin (2009).} \]
strategic spending by the patron averts these outcomes. The patron provides military assistance to the secessionists at such a level that \( g \) does not prefer to initiate conflict, and provides sufficient economic and humanitarian assistance to prevent \( s \) from preferring war to a continuation of the status quo. However, if there is no patron or if the patron is not sufficiently interested, war may become a more attractive outcome than the status quo for at least one of the parties.

The cases where there is no patron, such as in Chechnya, this is relatively easy to explain. As the home state (Russia) strengthened, there was no patron support to offset the relative decline in the Chechens’ military capabilities. Over time the war lottery became progressively more skewed in favor of Russian victory, the payoffs to ceding for the unrecognized state remained extremely low, and the Russian government invaded and reconquered Chechnya.

It is worth exploring, however, the reasons why a patron might support a secessionist group during its initial rebellion and then withdraw support at a later date. Patrons’ strategic interests in the unrecognized state vary from patron to patron, and both budget constraints and salience of interest vary over time. For example, domestic political concerns (primarily ethnic solidarity with the secessionists) induced a modest level of Indian support for the Tamil Tigers in Sri Lanka 1983-1987. These domestic political concerns were eventually outweighed by broader strategic security concerns and a desire for regional stability. In 1987 the Indian government signed a peace accord with Sri Lanka (the home state) and largely withdrew their support from the Tamil secessionists, even sending in peacekeepers that later clashed with the secessionists militarily (Singer 1992). The Tamil diaspora funded the secessionist military until 2009, when this support proved insufficient and the territory was reconquered by the Sri Lankan government.\(^{25}\)

\(^{25}\)On a smaller scale, the Isaaq diaspora has also fulfilled some of the roles of the patron in Somaliland (Galipo 2011).
As noted in the section on outside interactions between the patron and player $c$, the patron’s decision to withdraw support for the secessionists is sometimes motivated by interactions between the patron and $c$ that we do not model directly. Empirically, we observe a number of cases in which $c$ applies pressure directly to encourage the patron to withdraw support from the unrecognized state. In an extreme example involving both sanctions and direct military confrontation, NATO coerced Serbia into, among other things, withdrawing its support from Republika Srpska and Republika Srpska Krajina.\footnote{For an excellent discussion of the case of Republika Srpska, see Zahar 2004.} In the final section of the paper, we consider direct coercion of the patron among the strategies available to player $c$.

**Policy Implications: Options for Player $c$**

We observe in practice a large number of actors in the international system with the preferences we ascribe to player $c$: A preference for reunification over independence, for resolution over the status quo, and for peace instead of war. We observe these actors acting both alone and in concert with one another, sometimes through international organizations, to attempt to influence the outcome of secessionist disputes like those we model. The comparative statics from our model suggests that peaceful resolution can be induced by a sufficiently motivated outside actor. We consider here four means through which player $c$ might pursue this end: sanctions against the secessionist region, direct incentives provided to the secessionists in exchange for ceding, enforcement of concessions offered by the home state, and direct coercion of the patron.

Recall that when player $c$ joins the home state in enforcing sanctions against the unrecognized states, it changes the payoffs as follows:
The intended effect of sanctions is to make the status quo less appealing vis-à-vis ceding. However any sanctions that increase the secessionists’ hostility toward reunification will also increase the range of conditions under which war will be chosen. Sanctions that reduce the status quo payoff and the payoff from ceding more than they decrease the secessionists’ expected payoffs from war increase the range of conditions under which the secessionists will choose war. Compounding this, sanctions that reduce the secessionists’ expected payoffs from war will generally increase the central government’s payoffs from war, thereby increasing the range of conditions under which the home state will choose war. In either case, the range of conditions under which war will be initiated becomes broader.\textsuperscript{27}

There is a better way. If player $c$ tries to promote settlement by supplementing the payoffs from unification, they are able to induce negotiated settlement without simultaneously increasing the risk of war. This can be done either through promises of benefits to the unrecognized state provided directly by $c$, like aid, or by a commitment from $c$ to serve as a third-party guarantor of side payments promised by the ceding side. In the case of contingent promises of aid, the calculation is relatively straightforward: 1) the promise of aid must be credibly contingent on negotiated settlement, and 2) the aid offered must be valued more highly than the concessions required to reach an agreement. It is the second condition that is most problematic.

\textsuperscript{27}In most cases, the military position of the home state is stronger than that of the secessionists, so a further tip in the balance of military power toward the home state is more likely to induce war than a similar change in favor of the secessionists.
Because both sides place such a high value on status (independence vs. reunification), even large amounts of aid are likely to be valued less than the concessions necessary to reach an agreement.

Serving as a third-party guarantor of autonomy rights is a way for player $c$ to potentially overcome problems of indivisibility and commitment and help the parties reach a credible compromise on status (Walter 2002). However, this strategy is only tenable when the only impediment to settlement is the unenforceability of a bargain, and when $c$ is credible as an enforcer of that bargain.

In Southern Sudan, third-party actors, including the UN, invested substantial resources to help negotiate a settlement and to ensure that the Sudanese government both allowed the promised a referendum and respected its results. While the UN and others invested resources in Southern Sudan to enforce independence, not autonomy, they have demonstrated that outside actors are capable of enforcing difficult concessions by the home state government. This bodes well for the future credibility of organizations like the UN as third-party enforcers. However, the role of outside actors in enforcing other past agreements might give secessionists pause. For example, a referendum on independence in Western Sahara, which the UN ruled to be necessary more than thirty years ago, has never come to pass.\textsuperscript{28} Nonetheless, it is possible for an outside state or coalition to invest resources to enforce agreements, allowing for negotiated settlements that would otherwise be impossible to reach.

To show that it is possible for an actor like player $c$ to enforce the terms of negotiated agreements at a reasonable cost is not sufficient to imply that such an outcome is likely. The political will necessary to achieve success in Southern Sudan was motivated largely by the magnitude of the atrocities that accompanied the war.

\textsuperscript{28}For a thorough analysis of the Western Sahara case, see Zunes and Mundy (2010).
of secession, and enforcement was made credible, in part, due to the weakness of Sudan relative to the outside states involved. Enforcing the terms of an agreement between Russia and Georgia, for example, would be more difficult.

It is also possible for actors like \( c \) to affect the payoffs of the patron through interactions in other games outside of our model. Such actions would manifest themselves within the model as reductions in the patron’s willingness to pay to sustain the status quo. If the patron is unwilling to pay to sustain the status quo, the war payoffs and status quo payoffs of the secessionists will decline over time, eventually leading to either war or negotiated settlement. Under these conditions, the within-game costs to \( c \) of inducing negotiated reunification also fall.

In this section we have argued that outside states are capable of imposing their preferred outcome, including peaceful reunification. The key, however, is motivation: actors like player \( c \) are capable of inducing peaceful reunification when they are willing to invest the resources necessary. However, strong preferences of secessionists against reunification and the opposing intervention of the patron make the costs of such interventions prohibitively high in most cases. Unrecognized statehood is a stable equilibrium because, while there are many actors in the international community that share the preferences we ascribe to \( c \), they are usually unwilling to invest sufficient resources to outspend the patron and induce their preferred outcome.

**Conclusions**

In this paper we establish unrecognized states as an outcome of interest in international relations and provide a unified framework for analyzing that outcome and its alternatives. While the importance of outside actors in civil conflict has been widely acknowledged in the empirical literature, it is rarely modeled formally. We
introduce a unique four-player model that captures the core strategic interactions of the secessionist elite and the home state central government, as well as the interventions of outside actors with interests in the outcome. This allows us both to examine the means through which patron states sustain unrecognized statehood as a stable equilibrium, and to rigorously analyze the strategies available to other outside actors to pursue reunification. It is not always in the interests of outside states to bear the costs of inducing their preferred outcome, but we identify the mechanisms through which this is possible, and the thresholds that must be overcome.

In the model we present, we show that unrecognized statehood can emerge as an equilibrium outcome even when no player prefers it as a first-best. The patron, even when they prefer outright independence, is willing to bear costs in every period to uphold an outcome that is far short of their ideal, and which imposes high costs on others as well.

By providing military aid to the unrecognized state, the patron keeps the likelihood of outright military victory for the home state low enough to prevent war. By providing economic and other aid to the unrecognized state, the patron keeps the secessionist elite’s payoffs from the status quo high enough to prevent a negotiated reunification. The stability of this equilibrium is abetted by the indivisible nature of independence and the difficulty of enforcing autonomy as a condition of reunification. In cases where there is no patron or where the patron eventually becomes unwilling to continue its support, the result has almost always been violent reconquest by the home state.

Our model also suggests, however, that the historical pattern of costly stalemate followed by violent resolution is not the only possible path. We show that the stabilizing effect of the patron can be overcome by a sufficiently motivated outside state (whom we model as player $c$). While the most frequently employed means
through which outside actors attempt to induce settlement (i.e. sanctions) also increase the risk of war, we show that it is possible for outside actors to induce their preferred outcome without running this risk. In particular, we suggest that they can provide positive inducements for settlement and serve as a third-party guarantor of negotiated settlements in which unrecognized states rejoin the home state as autonomous regions. It is often not the lack of available means that prevents outside actors from inducing their preferred outcome, but rather the lack of will.
References


A Technical Appendix

There are various potential equilibria in the game. As discussed in the text, we are interested particularly in the outcome of long-term unrecognized statehood. Therefore, the existence of an equilibrium of unrecognized statehood must be shown. We will use the solution concept of subgame perfect equilibrium.

Lemma 1: In a status quo equilibrium, \( p \) will invest.

Proof: Per the definition of a status quo equilibrium, actions by \( s \) and \( g \) must be to play status quo in every period; \( p \) or \( g \) may potentially invest so long as incentives for \( s \) and \( g \) do not stray from the status quo. Therefore, status quo payoffs must be high enough to incentivize \( s \) and \( g \)’s decisions to play status quo. If these incentives exist initially, the only exogenous change in payoffs comes from the continual degradation of payoffs of \( s \) in every period, which in the absence of investment will eventually give incentives either to \( g \) to play fight of for \( s \) to play cede. Such actions lead to outcomes that are not in the interest of \( p \), so investment may be in \( p \)'s interest if its preferences and budget constraint are compatible. Therefore, a status quo equilibrium will necessarily have investment by \( p \). ■

Lemma 2: Failure for a buffer to exist on the status quo payoffs of \( s \) in any period can give incentives to immediately enter an absorbing state. \(^{29}\)

We define buffer as excess payoff with respect to the next best option for \( s \). Given parameters, preferences, and budget constraint of \( c \), there is a discrete largest

\(^{29}\)The buffer would have to exist on \( g \)'s payoffs if the order of investment is reversed. If \( p \) and \( c \) were allowed to answer each other’s investment in continuous time, as might be more realistic, there is no buffer required in the limit as response time goes to 0.
one-period rational investment $F^*$ that $c$ would be willing to make to achieve reunification, its desired outcome. Given the relationship between variables given above, $F^* = \frac{\beta}{1-\delta_c}$, which is calculated based on how much $c$ would be willing to invest in one period to enter its preferred absorbing state from a status quo equilibrium.\(^{30}\) Since $p$ moves first in play, if this buffer does not exist at $n = 1$, $p$ may use the first investment opportunity to create this buffer of size $F^*$ and can do so so long as it will not exceed its budget constraint $B_{p1}$.\(^ {31}\) Since parameters are common knowledge, if $B_p \geq R_p$, then $c$ is aware that $p$ can afford to avoid reunification. If also a two-state outcome is more important for player $c$ to avoid than for the patron to achieve, i.e. $-\nu - \frac{\lambda + \mu}{1-\delta_p} \geq \frac{\lambda + \mu}{1-\delta_p} - \delta_p$, and a single-state outcome is more important for the patron to avoid than for player $c$ to achieve, i.e. $-\alpha - \frac{\beta - \delta}{1-\delta_c} \geq \frac{\beta - \delta}{1-\delta_c}$, then a status quo is a happy medium. If the buffer at $n = 1$ does not already exceed $F^*$, and failing an initial investment by $p$ to achieve this level, $c$ is faced with the option of taking an action to invest. Knowing that equilibrium behavior will have $p$ investing in the following round given the preceding conditions, thus knowing that this one period will be the only opportunity to do so, $c$ will have the incentive to invest enough in that period to achieve its desired outcome reunification: the best response of $c$ is to invest sufficiently to create incentives for $s$ to play cede.\(^ {32}\)

\(^{30}\)Here we reference the construction of a specific status quo equilibrium, perhaps the most obvious. In this equilibrium, which will be explained fully in the Theorem, we create the buffer for $p$ to make conditions (payoffs) for the status quo for $s$ better. In the first period $p$ creates a sufficient buffer $F^*$ on the payoffs of $s$ that prevents $c$ from spending resources to change payoffs in a way that incentivizes actions other than the status quo (and that would lead to an absorbing state).

\(^{31}\)If a buffer greater than $F^*$ exists, there is room for payoffs to degrade for the secessionists and still have the status quo remain the preferred outcome without full (or perhaps any) investment by the patron. Since there is no uncertainty, if at $n=1$ the buffer is larger than $F^*$, the patron can let payoffs fall to $F^*$ the minimum possible that does not give incentives for player $c$ to act.

\(^{32}\)Essentially player $c$ knows the patron made a mistake if the buffer falls below the critical level, so should seek its preferred outcome immediately by investing.
Lemma 3: In a status quo equilibrium, \( c \) will never invest on the equilibrium path.

Proof: Because there is no uncertainty, players can pinpoint their equilibrium actions and play efficiently. Because \( \alpha < 0, \beta > 0, \lambda > 0 \) and \( \nu < 0 \), the interests of \( p \) and \( c \) are in opposition. We can thereby establish whether it is worthwhile to invest to achieve both \( c \) and \( p \)'s second best outcome: a perpetual status quo. Per Lemma 1, \( p \) will invest to achieve this second best outcome, the perpetual status quo, rather than allowing reunification. It is also on \( p \)'s equilibrium path for a status quo equilibrium to create a buffer (lemma 2) if it can overcome a potential spending barrage by \( c \), i.e. if \( B_p(n+1) \geq \frac{\beta}{1-\delta_c} + \mu \). If a buffer of size smaller than \( F^* \) exists under the conditions in Lemma 2, the status quo is not an equilibrium as \( c \)'s one shot best response is to invest enough to enter into the absorbing state of reunification. A buffer of size \( F^* \), if it exists, will mean the largest one-shot rational investment by player \( c \) is not effective in moving incentives away from the status quo. Without investment by \( c \), a status quo equilibrium is possible if \( p \) invests enough to maintain a buffer of size \( F^* \). Since \( c \)'s myopic best response involves not investing and allowing the status quo, and any investment less than \( F^* \) is futile because it can and will be counteracted by \( p \) then any strategy by \( c \) that involves investment in any period is not a best response in a status quo equilibrium. ■

**Theorem:** An equilibrium including perpetual unrecognized statehood exists.

Proof:\(^{33}\) If in some period \( n \) for both players \( i \in \{s, g\} \), \( Q_{in} \geq L_{in} \) both players will not be given incentives to play cede unless the payoffs are altered. Likewise, if for both players \( i \in \{s, g\} \), \( \frac{Q_{in}}{1-\delta_i} \geq -\zeta_i + \frac{(L_{in}(p_2)+W_{in}(p_1)+Q_{in}(1-p_1-p_2))\delta_i}{1-\delta_i} \) holds in

\(^{33}\)There are many potential status quo equilibria. This outlines one equilibrium and gives conditions for its existence.
the same period $n$, both players would prefer to play the status quo rather than the war lottery. Without loss of generality, assume these relationships between variables exist at the start of the game ($n=1$). Assume that the parameterization and payoff relationship at $n$ is such that $s$’s next best option (after the status quo) to be ceding.\footnote{If the next best option is instead \textit{fight}, similar analysis and results hold.}

Forward-looking players $g$ and $c$ have their chances to alter the relationship between these variables by investing $R_{in}$ in period $n$. In order for one player’s interest to not dominate the other’s, a two-state outcome is more important for player $c$ to avoid than for the patron to achieve, i.e. $\frac{-\nu}{1-\delta_c} \geq \frac{\lambda+\mu}{1-\delta_p}$, and a single-state outcome is more important for the patron to avoid than for player $c$ to achieve, i.e. $\frac{-\delta-\mu}{1-\delta_p} \geq \frac{\beta}{1-\delta_c}$. Both these parameterizations must hold in any status quo equilibrium.

Both $p$ and $c$ would be potentially willing to invest to achieve their preferred outcome. However their incentives are not aligned and there is common knowledge of all parameters, so in an equilibrium a maximum of one player will invest to achieve the preferred outcome. (Lemma 1). Because $c$ knows $p$’s payoff function, it believes that $p$ will keep paying to keep $s$’s payoff from the status quo above the buffer (Lemma 2). Therefore, $c$ chooses not to invest (Lemma 3).

Our status quo equilibrium requires that $p$ invests in every period enough to maintain $F^*$ by offsetting the $\mu/2$ decline in the secessionists’ status quo payoffs. The $s$’s military will also need to be funded to make sure it does not get weak enough that the home state will have a better expected payoff from war than from the status quo, which would trigger war. Therefore when the expected payoffs from war for the home state approach its payoffs from the status quo, the patron must also pay to replace the lost $\mu/2$ of the $s$’s military strength every
period. The total per-period equilibrium investment \( R_{pn} \), a flow payment, in the long run is thus \( \gamma \mu \) per period in this steady state. In a status quo equilibrium \( c \) need not invest at all since stage game payoffs of \( g \) do not deteriorate.\(^{35}\)

A status quo equilibrium constructed here requires that \( p \) uses a strategy of investing resources if the buffer shrinks below \( F^* \). Equilibrium strategies for this status quo equilibrium are for \( s \) and \( g \) to in every period play \textit{status quo} as long as it yields the highest expected payoff, and to play \textit{cede} or \textit{fight} if payoffs from either exceeds the status quo payoffs using rational expectations (see conditions above). The strategy for \( c \) is to invest in period \( n \) only if either (1) investment \( R_{cn} \) will affect payoffs in that period so \( s \) prefers \textit{cede} to \textit{status quo} in that period \( n \) or (2) if it can reduce payoffs to a point so that when the degradation \( \mu \) is taken into account, i.e. it can invest enough so that \( B_p(n + 1) < \frac{\beta}{1 - \delta_c} + \mu \). In other words, if \( c \) can invest enough so that its investments incentivize \( s \) to play \textit{cede}. In such a case it invests the required amount to achieve this outcome, otherwise it invests nothing. The strategy for \( p \) is to "outspend" \( c \) to achieve the incentives for its preferred outcome in period \( n \). When this is impossible, \( p \) will invest nothing until payoffs for \textit{status quo} for \( s \) fall so that the expected payoff of \textit{status quo} is \( F^* \) higher than its payoff for \textit{cede}. In the following periods and all periods after, \( p \) invests \( \gamma \mu \) per period. Contingencies for \( p \) are to counteract any investment by \( c \) in the previous period so that the buffer is returned to \( F^* \) before \( c \)'s play each round.

Equilibrium actions are thus for \( p \) to maintain the status quo by investing \( \gamma \mu \)

\(^{35}\) In the absence of the assumption in the model setup above that player \( c \) does not want war, the patron would need to retain a second buffer against \( c \) funding war. The expected value of war for the home state would need to be maintained at a level lower than the status quo payoff by a buffer of \( F^* = \frac{\beta}{1 - \delta_c} \). If this buffer did not exist in the first round of the game, the patron would fund the alteration of payoffs to create the buffer, thus assuring payments by \( c \) would be ineffective at trying to change the home state's payoffs to make war more attractive than the status quo.
each period; for $c$ to not invest and for both $g$ and $s$ play status quo each period.

There are many other potential equilibria, including, under the right parameters, potentially immediate ceding by either party as well as fighting. But at least one status quo equilibrium, as outlined here, will exist.