

1 3-player version, Status Quo better than Reunification

Let us consider a first case where the payoffs for the secessionists are higher in the unrecognized state ('Status Quo') than they are if they cede and rejoin the home state. This, for instance, may be the case very early after taking control of the territory before their economic situation has had a chance to deteriorate.

1.1 Players and Strategy Spaces

1. Home government (G) chooses $S_G \in \{SQ, C\}$ where SQ means 'Status Quo' of unrecognized statehood and C means 'Cede' the issue of status and recognize the secessionists as an independent state.
2. Secessionists (S) choose $S_S \in \{SQ, C\}$, same as for G except when they Cede, they rejoin the home state.
3. Patron state (P) chooses $p \in [0, \infty)$ to invest in the secessionists status quo payoffs

1.2 Timing and Information

The patron makes its investment. This investment is seen by all other players. Then the home government and secessions move simultaneously.

1.3 Payoffs

Let, for instance, (SQ, C) mean that G plays SQ and S plays C. Then

- The payoffs after (SQ, SQ) are $-p, 3, 2 + p$
- The payoffs after (SQ, C) are $-10 - p, 5, 1$
- The payoffs after (C, SQ) are $3 - p, 0, 5 + p$
- The payoffs after (C, C) are $-p, 3, 2$

1.4 Analysis

We proceed by backward induction.

- In the simultaneous game between G and S , C is dominated by SQ for player G .
 - Therefore the Nash Equilibrium (NE) of the subgame is determined by p :
 - * If $2 + p \geq 1$ (i.e. $p \geq -1$), the NE is (SQ, SQ) .
 - * If $2 + p \leq 1$ (i.e. $p \leq -1$), the NE is (SQ, C) .
 - * Recall that the smallest value of p that the Patron can choose is $p = 0$.
 - * Since $p \leq -1$ is not possible, (SQ, C) is not possible.
 - * Therefore (SQ, SQ) will be the equilibrium.
- The Patron's decision: Since (SQ, SQ) will be the equilibrium no matter what, the Patron will get a payoff of $-p$.
 - Since the payoff is $-p$, the Patron maximizes its payoffs by choosing the smallest possible p , which is 0.

Therefore the Subgame Perfect Nash Equilibrium is $p = 0$, (SQ, SQ) regardless of the value of p .