Equilibrium Strategy Profiles (For JLEO Revision)

First, need to get timing clear for evolution of state variable. Take state variable to be q_{st}.

- q_{s1}: beginning of the world (or, $Q_{s0} - \mu = q_{s1}$)

- $Q_{s1} = q_{s1} + R_{p1} + R_{c1}$

    - $q_{s2} = Q_{s1} - \mu$

Strategies

- For patron: function of q_{st}

- For c: function of $q_{st} + R_{pt}$

- For s: function of $Q_{st} = q_{st} + R_{pt} + R_{ct}$

- For g: not a function of q_{st} at all

For Markov-perfect equilibrium, strategy profile must be dependent on state variable, q_s only.

Note that patron will never invest to augment l_s or w_g. This leave four state varibles in which the patron may invest: q_s, q_g, l_g and w_s.

- Also, Gov't / Secessionists: Choose unilateral, simultaneous best responses depending on magnitudes of Q_{i1}, L_{i1} and ω_{i1}

    - Game only continues if (SQ,SQ) or (Cede, Cede) was played

Period 1

1. Patron: $R_{p1} = \frac{\beta}{1-\delta} - (q_{s1} - l_{s1})$ to augment q_{s1} if this is greater than 0. Else, $R_{p1} = 0$. Can write in max language.

    - International community:
    - (a) If $R_{p1} + q_{s1} - l_{s1} \geq \frac{\beta}{1-\delta}$, $R_{c1} = 0$
    - (b) Otherwise $R_{c1} = l_{s1} - (q_{s1} + R_{p1}) + \varepsilon$ to augment l_{s1}
        - (SQ,Cede) is played and game ends

2. Patron might also want to invest to encourage recognition. Most efficient way to do this is to augment L_{g1} (other options are to push either g or s to war, but probability of other outcome diminishes efficiency of investment, and assume payoff to war is lower to begin with).