

GV103: Introduction to International Relations

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Commitment Problems

Introduction

- Two goals for this lecture
 - Demonstrate that **expectation** of **shift in power** can lead to **war**
 - Discuss how this explains why there isn't less conflict

A Model of Bargaining While Power is Shifting

- Assume D is growing stronger relative to C
 - C either sets $x_1 \in [0, 1]$ or attacks
 - If C offers terms, D can accept or reject
 - Either way, at some point in the future, second crisis emerges
 - C either sets $x_2 \in [0, 1]$ or attacks
 - If C offers terms, D can accept or reject
 - Either way, game then ends

| Outcomes | u_C | u_D |
|---|-------------------------------|---------------------------------------|
| peace ₁ , peace ₂ | $x_1 + x_2$ | $1 - x_1 + 1 - x_2$ |
| peace ₁ , war ₂ | $x_1 + \underline{w}_2 - c_C$ | $1 - x_1 + 1 - \underline{w}_2 - c_D$ |
| war ₁ , peace ₂ | $w_1 - c_C + x_2$ | $1 - w_1 - c_D + 1 - x_2$ |
| war ₁ , war ₂ | $w_1 - c_C + \bar{w}_2 - c_C$ | $1 - w_1 - c_D + 1 - \bar{w}_2 - c_D$ |

Second Stage Analysis

- D 's acceptance rule nearly identical to before
 - D accepts iff $u_D(\text{peace}_2) \geq u_D(\text{war}_2)$
 - If war_1 , equivalent to $x_2 \leq \bar{x}_2$
 - If peace_1 , equivalent to $x_2 \leq \underline{x}_2$
 - Where $\bar{x}_2 \equiv \bar{w}_2 + c_D$ and $\underline{x}_2 \equiv \underline{w}_2 + c_D$
- At second stage, C must prefer $x_2 = w_2 + c_D$
 - In second stage, war is strictly inefficient
 - Thus, peace is **certain** in second stage
 - Once a shift in power **occurs**, it has no impact

First Stage Analysis

- D accepts iff $x_1 \leq \hat{x}_1$
 - Where $\hat{x}_1 \equiv w_1 + \bar{w}_2 - \underline{w}_2 + c_D$
 - $\hat{x}_1 > 1$ possible, but D cannot give up more than everything

- If $\hat{x}_1 < 1$
 - C offers terms iff $u_C(\text{peace}_1 | x_1 = \hat{x}_1) \geq u_C(\text{war}_1)$
 - $\Rightarrow \hat{x}_1 + \underline{x}_2 \geq w_1 - c_C + \bar{x}_2$
 - $\Rightarrow c_C + c_D \geq 0$

- If $\hat{x}_1 \geq 1$
 - C offers terms iff $u_C(\text{peace}_1 | x_1 = 1) \geq u_C(\text{war}_1)$
 - $\Rightarrow 1 + \underline{x}_2 \geq w_1 - c_C + \bar{x}_2$
 - $\Rightarrow 1 + c_C \geq w_1 + \bar{w}_2 - \underline{w}_2$

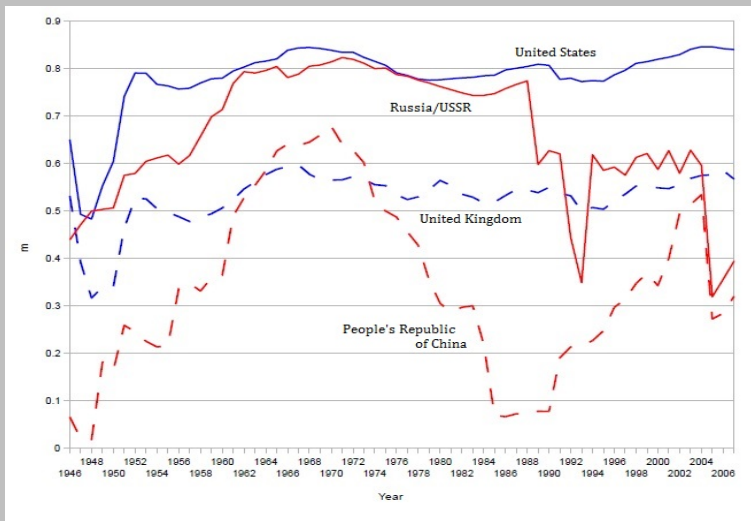
Historical Example

- Slavery as issue of contention for ACW, but not **cause**
 - Three-fifths compromise
 - Territorial expansion and balance of power
 - Crittenden proposal and Corwin Amendment
- Lincoln's change of strategy
 - After attack on Fort Sumter, Lincoln's cabinet met
 - Decided against invasion, choosing blockade instead
 - Two months later, Lincoln decided to invade
 - Fear of British recognition

Data

- Observations: all dyad-years from 1821 to 1913, 1946 to 2007
- y : outbreak of war w/ 2 states on opp sides
 - Taken from Correlates of War interstate war data
 - Excludes those who suffered <10% of fatalities on their side, unless that state fought alone for an extended period
- x s: Milcap Share, Likely $_H$, Likely $_L$
 - Milcap Share = $\frac{m_H}{m_L + m_H}$ where m_H is larger m score
 - Likely shares are based on current Milcap share, trend, war

A Look at the m Scores



Results

| | War |
|---------------------|-----|
| Milcap Share | + |
| Likely _H | +* |
| Likely _L | -* |