Who Complies? International Agreements and Non-State Actors

Henry Pascoe

UH EITM Summer Institute

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Non-State Actors and International Agreements

- Pollution
- Terrorism
- Money Laundering
- Resource Use
- Narcotrafficking
- Intellectual Property

Research Questions

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- Do such agreements influence non-state actor behavior?
- Can foreign powers use subsidies to build political order?

State Capacity

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- Bureaucratic and material resources necessary to enforce laws on individuals and corporations in a state's territory.
- For international cooperation to occur, states must have both the ability and will to adjust policy.
- Unilateral defection by non-state actors can decrease the ability of states to cooperate.

Concepts

- Theoretical Concepts
  - Decisionmaking
  - Strategic interaction
  - Expectations
  - Learning

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- Theoretical Concepts
  - Decisionmaking
  - Strategic interaction
  - Expectations
  - Learning
- Theoretical Analogues
  - Utility maximization
  - Conditional Expectation
  - Bayesian Learning

Set-Up

- State 1 and State 2 with available resources r_1 and r_2, respectively.
- Nonstate actor (T) in State 1 who can engage in an activity that is costly to State 1 at the rate of β_1 and to State 2 at the rate β_2. State 2 does not know β_1, the cost of T's activity to State 1.

State Capacity & Subsidies

- State 2 can provide a subsidy to State 1, $s \in [0, r_2]$
- State 1 can invest in enforcement, $e \in [0, r_1 + s]$
- States consume resources they don't spend.

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- Nonstate actor (T) is caught being non-compliant with probability $q = f(e)$ where $f(.)$ is a increasing function in e which maps $e \in [0, \infty)$ onto $q \in [0, 1]$ s.t. $f(e = 0) = 0$, $f(e)$ is right continuous, and $lim_{e \to \infty} f(e) = 1$

Enforcement

- If T complies, they receive payoff from "normal commerce" $l \in [0, \infty)$
- If T doesn't comply, they receive payoff from illicit activity $b \in (l, \infty)$
- Therefore T complies if $q \geq q^* = 1 - \frac{l}{b}$

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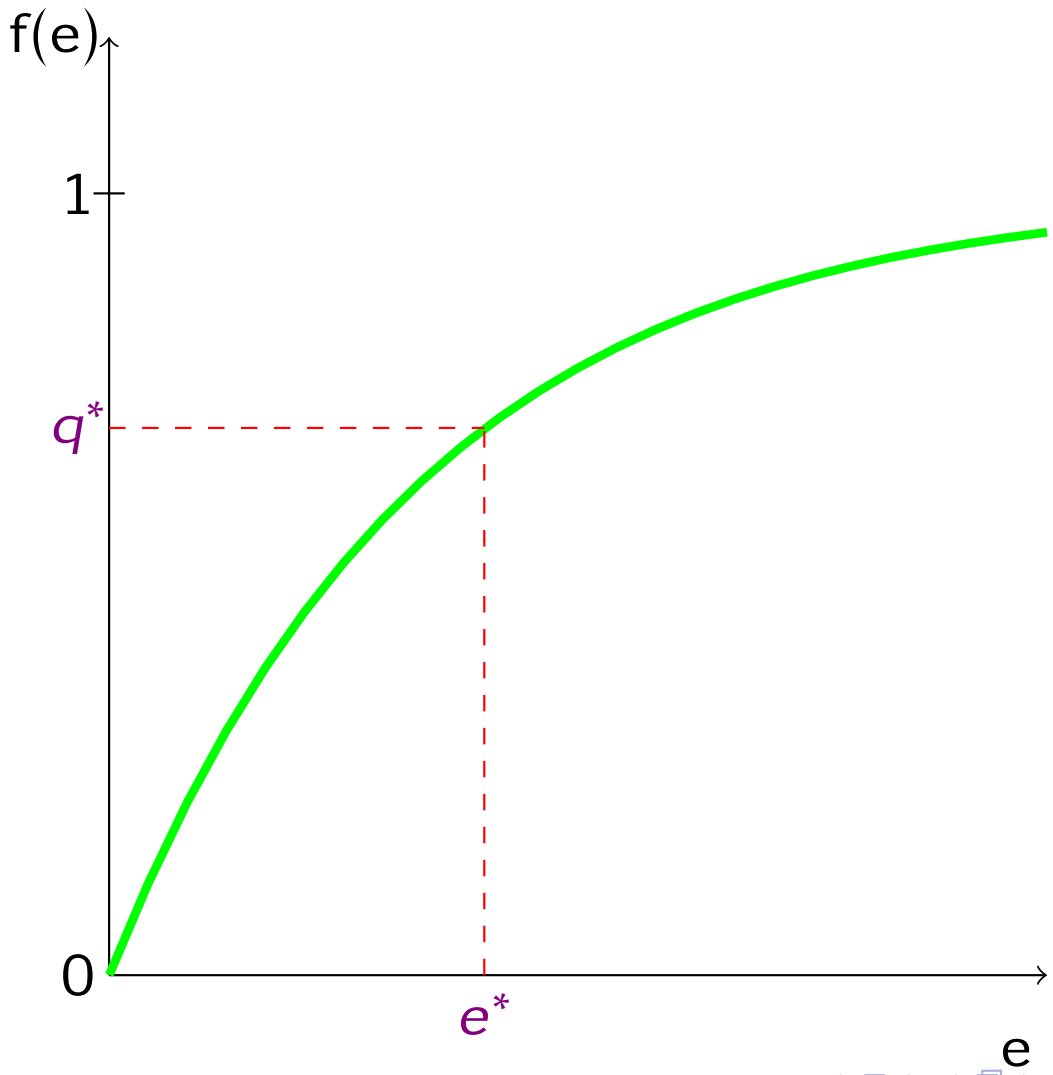
- If T doesn't comply, they receive payoff from illicit activity $b \in (l, \infty)$
- Therefore T complies if $q \geq q^* = 1 - \frac{l}{b}$
- The necessary investment in enforcement to deter T, a "robust" enforcement policy, is $e \geq e^* = f^{-1}(q^*)$

Enforcement



International Agreements and the Aid Recipients Commitment Problem.

- Because 2 doesn't know how much interest 1 has in curbing T's behavior (β_1), they do not know that subsidies provided will go to enforcement rather than consumption.
- If non-state actors are non-compliant and State 1 signed an international agreement, they suffer a reputation cost, a.

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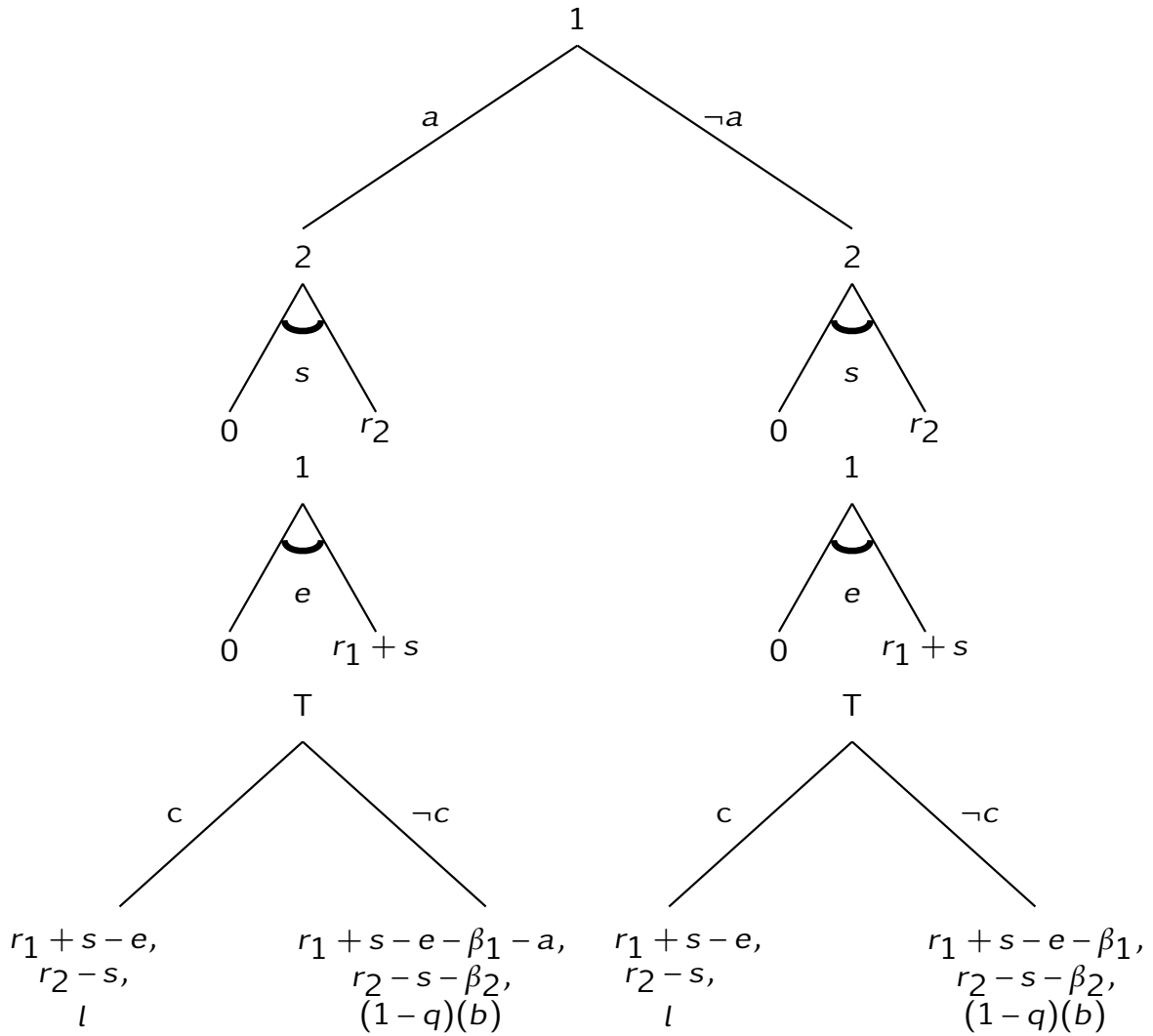
- If non-state actors are non-compliant and State 1 signed an international agreement, they suffer a reputation cost, a.
- Therefore signing an agreement allows weak states to commit to use subsides on enforcement.

Game Tree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(1 − q)(b)
r1 + s − e,
r2 − s,
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r1 + s − e − β1,
r2 − s − β2,
(1 − q)(b)

PBNE: Case I and II - Separation

If $r_1 < e^*$ and $a \geq e^* - r_1$ (Case I and II)

$$S_1 \begin{cases} \textit{Don't agree and } e = 0 \textit{ if } \beta_1 < r_1 \quad (\textit{Case I}) \\ \textit{agree and } e = e^* \textit{ else} \quad (\textit{Case II}) \end{cases}$$

$$S_T \begin{cases} \textit{Don't Comply if } e < e^* \quad (\textit{Case I}) \\ \textit{Comply else} \quad (\textit{Case II}) \end{cases}$$

$$S_2 \begin{cases} s = 0 \textit{ if 1 doesn't agree} \quad (\textit{Case I}) \\ s = e^* - r_1 \textit{ else} \quad (\textit{Case II}) \end{cases}$$

Beliefs: If 1 agrees, 2 believes $\beta_1 \geq r$, If 1 doesn't agree, 2 believes $\beta_1 < r$

PBNE: Case III and IV - Pooling (High Trust)

$$\text{Let } \hat{p} = Pr_2(\beta_1 \geq e^* - a)$$

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If $r_1 < e^*$ and $a < e^* - r_1$

When $\hat{p} \geq \frac{e^* - r_1}{\beta_2}$

$$S_1 \begin{cases} \textit{Agree and } e = 0 \textit{ if } \beta_1 < e^* - a \quad (\textit{Case III}) \\ \textit{agree and } e = e^* \textit{ else} \quad (\textit{Case IV}) \end{cases}$$

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$$S_2 \begin{cases} s = e^* - r_1 \end{cases}$$

Beliefs: 2 doesn't learn anything from 1's actions.

PBNE: Case III and IV - Pooling (Low Trust)

If $r_1 < e^*$ and $a < e^* - r_1$
When $\hat{p} < \frac{e^* - r_1}{\beta_2}$

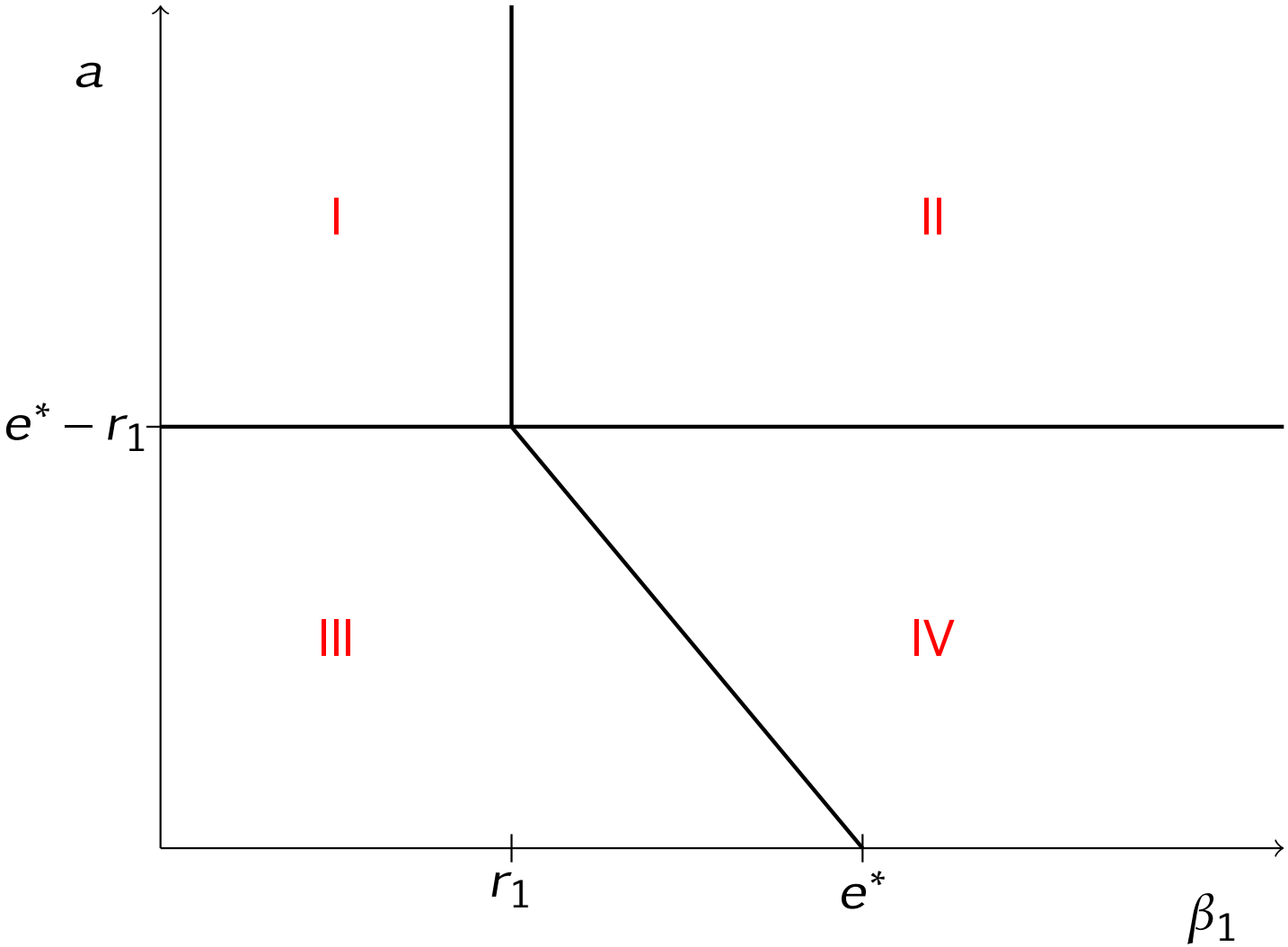
$$S_1 \begin{cases} \textit{Don't agree and } e = 0 \textit{ if } \beta_1 < e^* - a \quad (\textit{Case III}) \\ \textit{Don't agree and } e = 0 \textit{ if } \beta_1 \geq e^* - a \textit{ and } s < e^* - r \quad (\textit{Case IV}) \\ \textit{Don't agree and } e = e^* \textit{else} \end{cases}$$

$$S_T \begin{cases} \textit{Don't Comply if } e < e^* \\ \textit{Comply else} \end{cases}$$

$$S_2 \begin{cases} s = 0 \, (\textit{no subsidy}) \end{cases}$$

Beliefs: 2 doesn't learn anything from 1's actions.

Equilibrium Space: $r_1 < e^*$



PBNE: Case V and VI

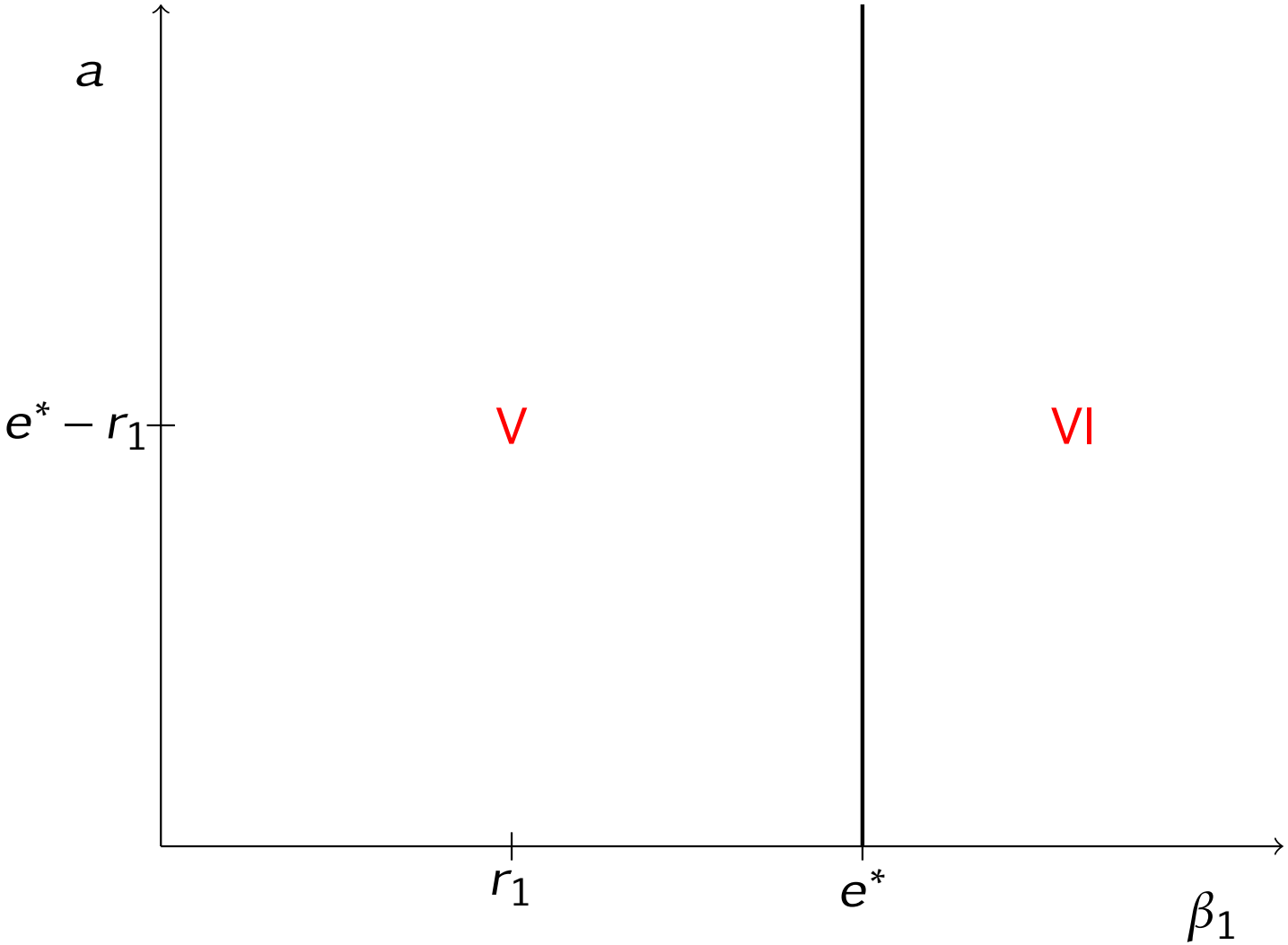
If $r_1 \geq e^*$

$$S_1 \begin{cases} \textit{Don't agree and } e = 0 \textit{ if } \beta_1 < e^* \quad (\textit{Case V}) \\ \textit{Agree and } e = e^* \textit{ if } \beta_1 \geq e^* \quad (\textit{Case VI}) \end{cases}$$

$$S_T \begin{cases} \textit{Don't Comply if } e < e^* \quad (\textit{Case V}) \\ \textit{Comply else} \quad (\textit{Case VI}) \end{cases}$$

$$S_2 \begin{cases} s = 0 \, (\textit{no subsidy}) \end{cases}$$

Equilibrium Space: $r_1 \geq e^*$



Summary

- Weak states can use international agreements to credibly commit to use foreign aid for its intended purpose.
- High capacity states are indifferent between joining international agreement or not when they expect to comply because they do not expect to receive subsidies from other states.

Hypotheses

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- Joining an agreement should increase compliance in weak states, but should have less, or no significant impact impact on noncompliance in strong states.
- Weak states ($r < e^*$) who join agreements receive more issue specific foreign aid than those who do not.

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- Weak states are more likely to join an agreement than small states.
- In weak agreements ($a < e^* - r$) trust increases, aid is more likely to be used for consumption rather than enforcement.

Statistical Concepts

- Nominal choice
- Random utility maximization
- Selection effects

Next Steps and Extensions

- Reciprocity

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- Spoilers

Next Steps and Extensions

- Reciprocity
- Spoilers
- Compliance Rates

Conclusion

- Management vs. Enforcement

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- Foreign Powers and Political Order

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- Management vs. Enforcement
- Foreign Powers and Political Order
- Aid Allocation and Effectiveness