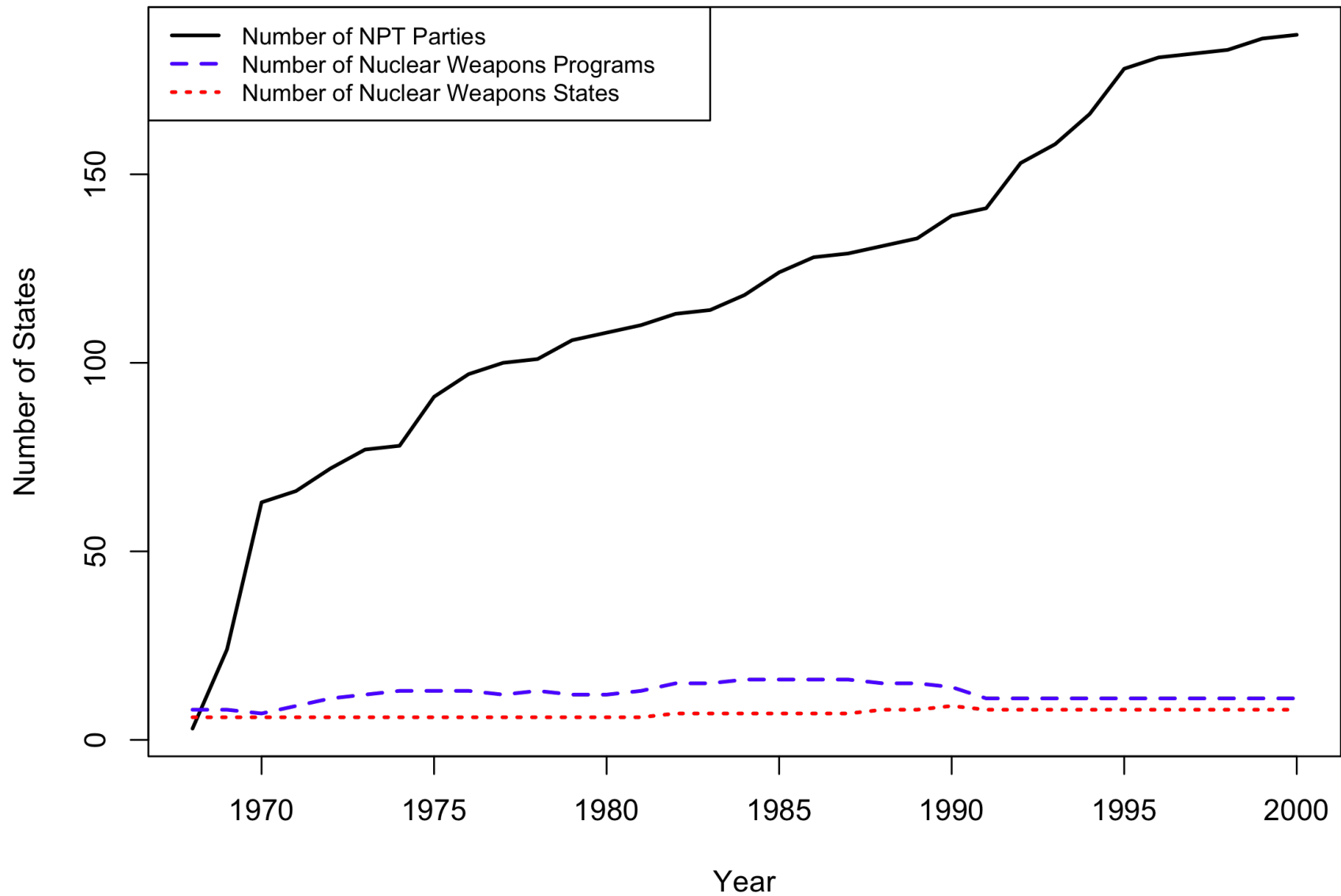


THE CREDIBILITY OF THE NUCLEAR NONPROLIFERATION REGIME

Jeff Kaplow

Ph.D. Candidate, University of California, San Diego
IGCC International Nuclear Security Dissertation Fellow

The nonproliferation regime is often seen as successful



But there are threats to regime credibility

- Some argue the credibility of the nonproliferation regime is at risk from:
 - Abstention:
 - Nuclear states that have not joined the NPT (Israel, India, Pakistan) and the failure to punish them
 - Actions that lend legitimacy to nuclear programs in such states (the US nuclear cooperation agreement with India)
 - Violation:
 - States that have pursued nuclear weapons while members of the NPT (Iraq, Iran, North Korea)
 - Exit
 - States that have withdrawn from the regime (North Korea)

Should we worry about regime credibility?

- Does the track record of the regime affect state decisions to comply with or stay within the regime in the future?
 - This is just one of the possible ways that the regime could constrain state behavior
- Do different types of regime failures have different effects on state assessments of regime performance?
 - Abstention, violation, and exit

Case evidence is scarce

- Case study evidence on the constraining power of the NPT is difficult to come by
 - This may be because the NPT doesn't matter
 - We may lack the detailed insight that would be necessary to see such evidence
 - The NPT may contribute to country assessments of their own security environment, which certainly play a role in nuclear decision-making

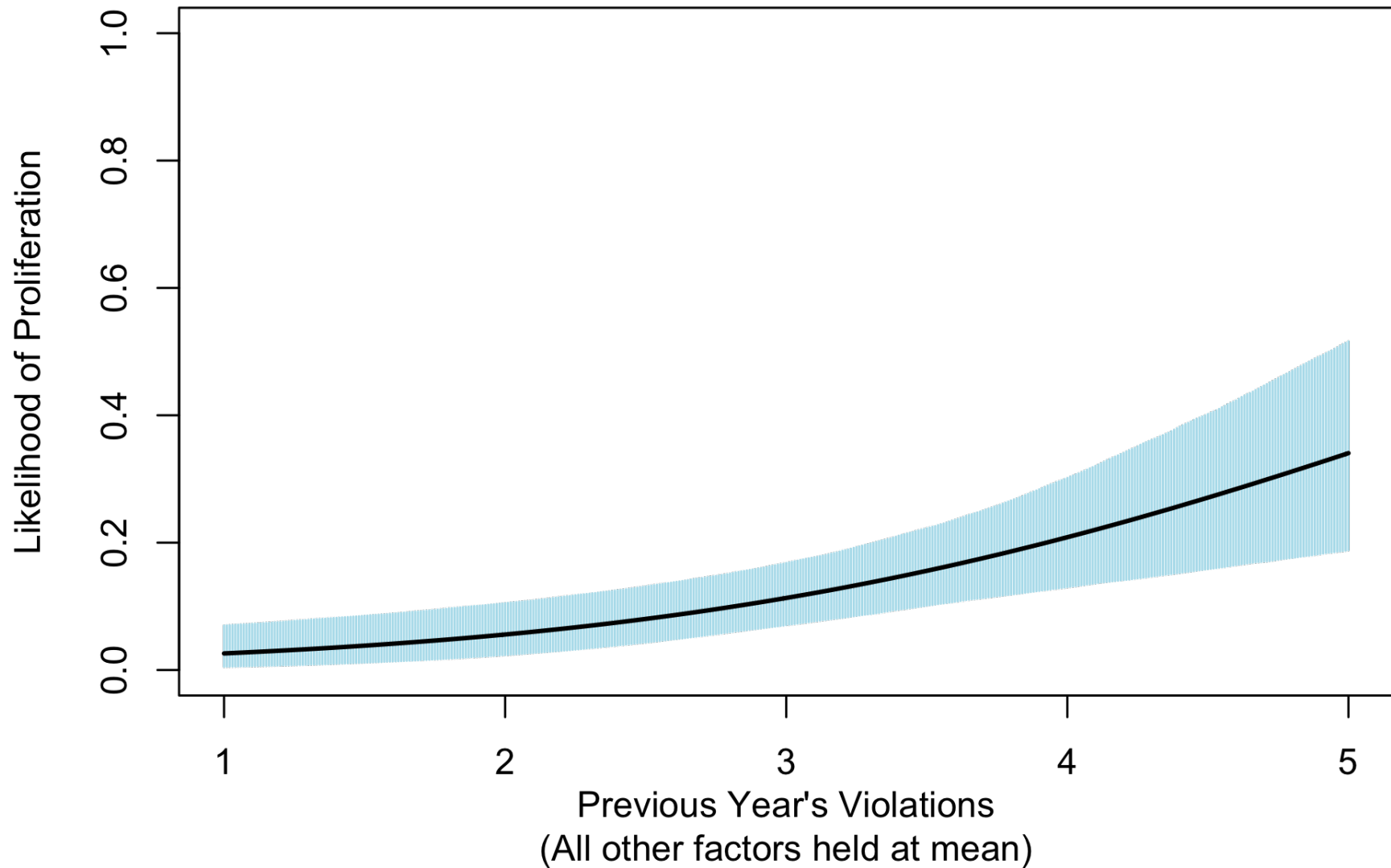
Finding: Regime credibility matters

- A bad track record (more past violations or more past abstentions) makes cheating more likely
- A bad track record (more past violations or more past abstentions) make countries less likely to join the NPT
- The strength of the “credibility effect” varies:
 - Regime credibility has a greater effect in countries that have more latent nuclear capacity
 - Regime credibility has a greater effect in countries that face greater international insecurity

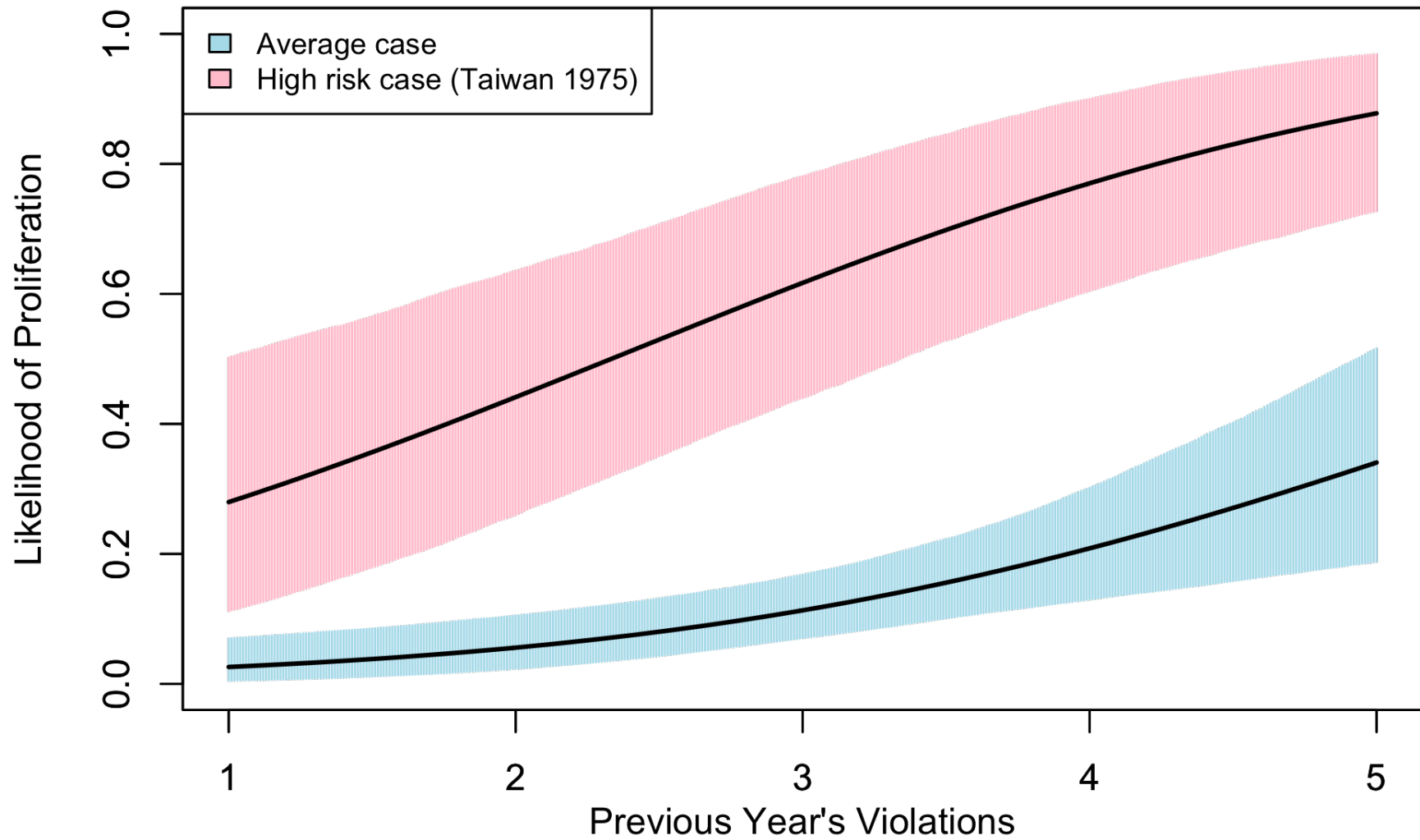
A quantitative approach

- Model of NPT violation
 - Data: Members of the NPT from 1971 to 2010
 - Incorporates factors we already knew were important: nuclear capacity, security environment, nuclear rivals, nuclear umbrellas
 - New factors: previous violations, previous abstentions
- Model of NPT accession
 - Data: Non-NPT members from 1971 to 2010
 - Incorporates factors we suspected were important: commercial interests, environmental politics, nuclear capacity, rival accession.
 - New factors: previous violations, previous abstentions

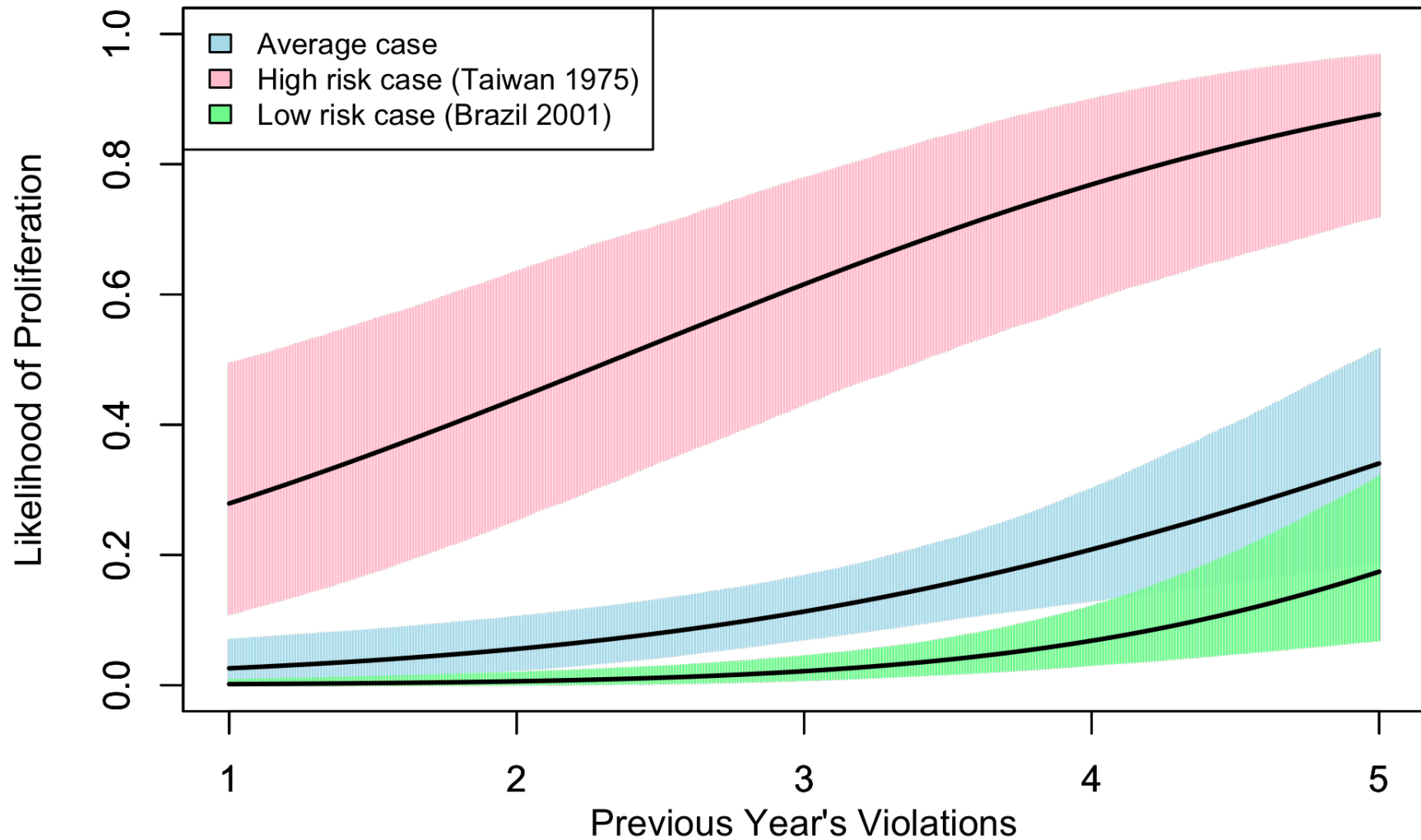
Regime credibility may be a proliferation trigger



Regime credibility may be a proliferation trigger



Regime credibility may be a proliferation trigger



Implications for nonproliferation policy

- Maintaining regime credibility should be a real foreign policy goal
 - This will require difficult tradeoffs
- Regime credibility as a potential proliferation trigger
 - Timing is as important as capability
- Considering regime credibility can aid analysis
 - Prediction can give us more confidence in analytic models

Predicting proliferation

If, in 1985, we had used this model to predict proliferation for the next 25 years...

Predicting proliferation

If, in 1985, we had used this model to predict proliferation for the next 25 years...

		Actual	
		Weapons Program	No Weapons Program
Predicted	Weapons Program	43	50
	No Weapons Program	53	3403

True positive rate: 46.2%

Sensitivity: 44.8%

(Without regime credibility)

Predicting proliferation

If, in 1985, we had used this model to predict proliferation for the next 25 years...

		Actual	
		Weapons Program	No Weapons Program
Predicted	Weapons Program	43	50
	No Weapons Program	53	3403
		Weapons Program	No Weapons Program
		Weapons Program	No Weapons Program
Predicted	Weapons Program	52	26
	No Weapons Program	44	3427

True positive rate: 46.2%
Sensitivity: 44.8%
(Without regime credibility)

True positive rate: 66.7%
Sensitivity: 54.2%
(With regime credibility)

Thank you!