

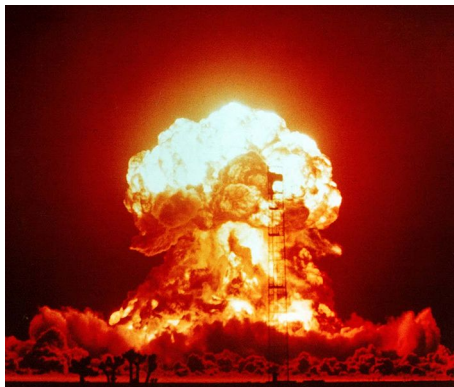
War Exhaustion and the Stability of Arms Treaties: Why Did the Soviet Union Proliferate in 1949?

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A Simple Observation



Bad. Costly. Why?

Proliferation Theory

- Current literature explains proliferation:
 - 1 Bargaining zero sum
 - 2 Weapons worth cost
 - 3 Preventive war not credible

Proliferation Theory

- Current literature explains proliferation:
 - ① Bargaining zero sum
 - ② Weapons worth cost
 - ③ Preventive war not credible
- Soviet proliferation therefore rational because:
 - ① Competition with US
 - ② Expensive but worthwhile
 - ③ US did not intervene

Why Not Bargain?

Why Not Bargain?

- Bargaining usually works!
 - Declining state gives immediate concessions to rising state
 - Rising state does not build—pointless if it already gets what it wants
 - Efficient result

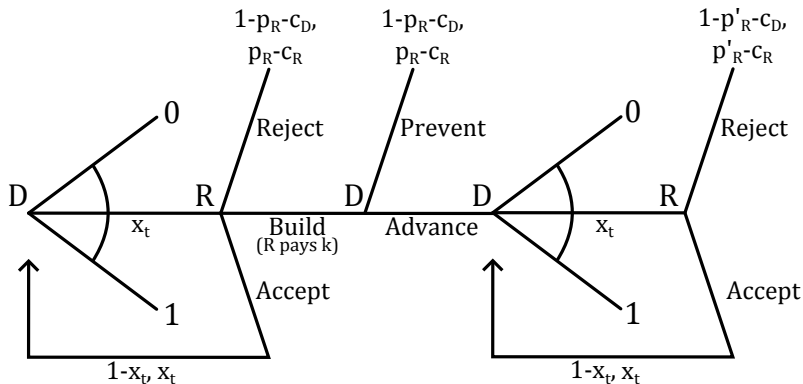
Why Not Bargain?

- Bargaining usually works!
 - Declining state gives immediate concessions to rising state
 - Rising state does not build—pointless if it already gets what it wants
 - Efficient result
- So why Soviet proliferation?
- Commitment problem: bargaining can fail if declining state's desire to prevent changes over time
 - US wanted to buy off USSR
 - Concessions would disappear once US war exhaustion ended
 - USSR proliferates to guarantee its position

Key Features

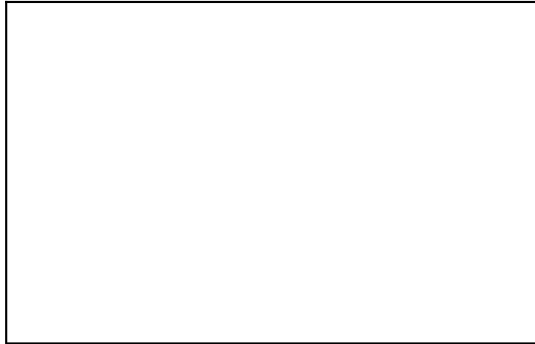
- Bargaining model of war framework (Fearon 1995)
- Investment must be endogenous, costly
- Interaction must continue through time
- Declining state must be strategically vulnerable

Game Tree



Equilibrium Outcomes

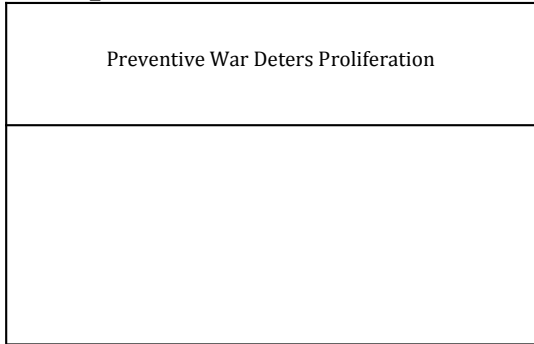
Extent of Power Shift



Cost to Build

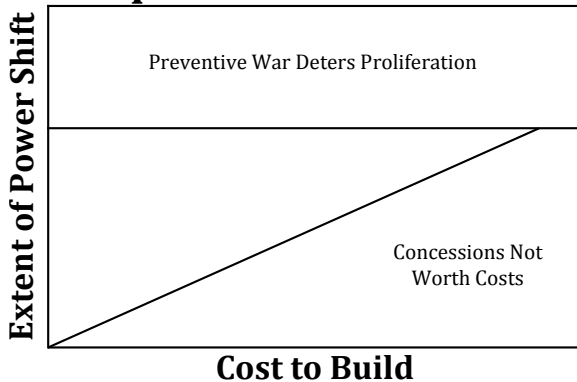
Equilibrium Outcomes

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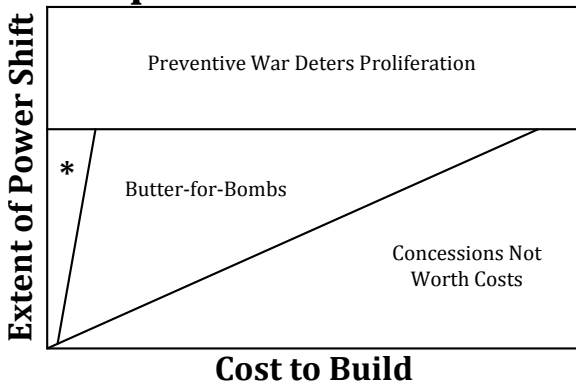


Cost to Build

Equilibrium Outcomes



Equilibrium Outcomes



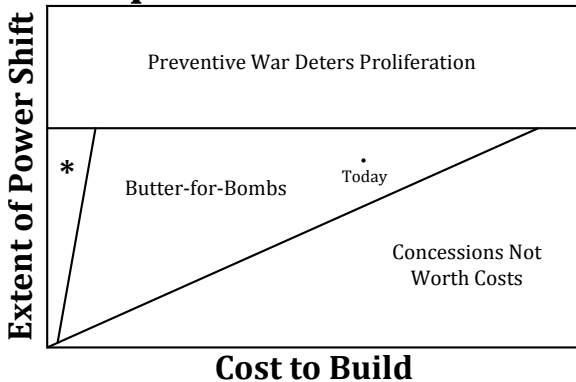
Robustness

- Butter-for-bombs robust to alternative specifications
 - Prior investment in nukes
 - Prestige
 - Punishment for renegeing
 - Negative externalities
 - Nondeterministic proliferation
 - Bargaining over objects that influence future bargaining power
 - Imperfect monitoring

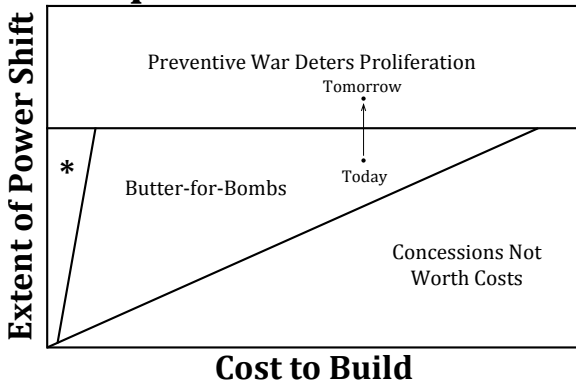
Creating a Commitment Problem

- Baseline model: declining state's cost of war remains static over time
- But sometimes desire to fight wars comes and goes
- Fighting back-to-back wars might be impractical (Treisman 2004) or undesirable
- Causes commitment problem

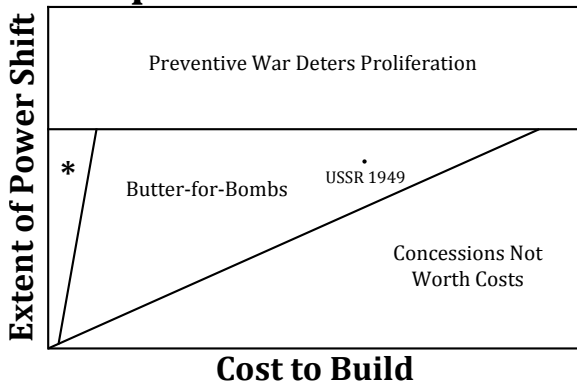
Equilibrium Outcomes



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Equilibrium Outcomes

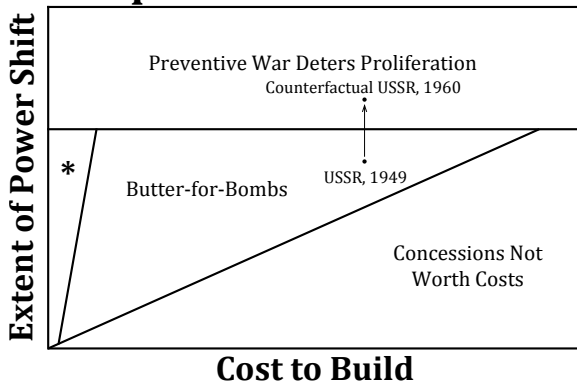


Berlin Blockade, 1948



American Spies in Russia, 1945

Equilibrium Outcomes



Cuban Missile Crisis, 1962



CIA (1952), Spy Planes (1955) Enter the Fray



Thought Experiment

- Suppose USSR did not proliferate by 1960
- Would US still give USSR concessions?
 - Probably not—US more willing (war exhaustion gone) and better prepared (intelligence problems fixed)
 - Why use expensive carrots when the stick is free?

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- So is proliferating in 1949 rational?
 - Settlement possible in the short term
 - But terms of settlement would eventually go bad
 - Proliferation rational despite inefficiency

Recap

- Existing explanations for proliferation (coercive relationship, worthy investment, no preventive war) *necessary* but not sufficient
- Why not bargain? Efficient, Pareto improving agreements possible
- Arms treaties fail if declining state cannot credibly commit to not leverage future threat of preventive war

End

Thank You!

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