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# Rising, Arming, and a Screening Effect of Alliances

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# Motivation

Preventive war is

- ▶ caused by expected power shifts (Fearon, 1995; Powell, 2006)
- ▶ fueled by (hidden) revisionism of the rising country (Debs and Monteiro, 2014)

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RQ: Do alliances deter preventive war?

Do alliances weaken hostility against protégés?

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Literature: alliances are costly signaling. They solve an information problem over a patron's intention (Morrow, 1995; Smith, 1995)

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My argument: alliances have a *screening effect* on a protégé's intention

# Model

## Overview

- ▶ a rising state chooses to invest in its military capability
- ▶ a declining state wants to prevent it if the rising state is a revisionist, but not if it is SQ-oriented
- ▶ revisionism is private information
- ▶ a patron has a choice of intervention

Then, I investigate how introducing the alliance changes the preventive war motives



# Model

## Implication

- ▶ a *screening* effect of alliances
- ▶ alliances make arming more informative by changing the value of arming
- ▶ w/o alliances, both types build their arms
- ▶ w/ alliances, only revisionist has the incentive to arm

In this screening effect, alliances can simultaneously

- ▶ deter a preventive attack
- ▶ constrain the arming by a protégé in a different way from existing studies (Benson, 2012; Fang et al., 2014)

# Hypothesis

I test two implications

- ▶ **H1:** Defensive alliances decrease the probability of preventive war, especially when expected power shifts are large
- ▶ **H2:** Defensive alliances make allies sensitive to internal arming costs

# Empirical Strategy 1

To test H1, I

- ▶ follow Bell and Johnson (2015) and (re)calculate the expected power shifts
- ▶ regress war against a rising country on the interaction of the expected power shifts and alliances
- ▶ with some control variables<sup>1</sup> and fixed effects

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<sup>1</sup>mutual democracy, foreign policy similarity, contiguity, distance, and up-to-cubic polynomial of peace years

# Result 1

The results show that

- ▶ the expected power shifts are positively associated with war
- ▶ alliances mitigate this positive correlation
- ▶ this mitigation effect becomes larger as the expected power shifts get larger

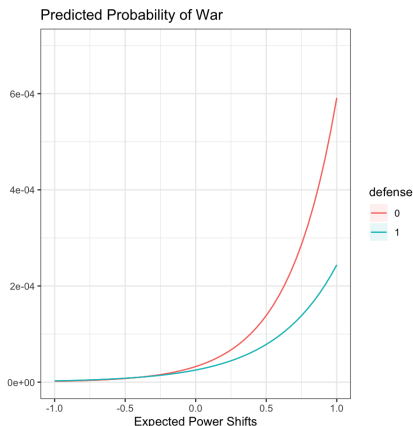


Figure: Predicted Probability of War

# Empirical Strategy 2

To test H2, I

- ▶ follow Chapman et al. (2015) to operationalize the internal arming costs as the size of opposition groups<sup>2</sup>
- ▶ regress military expenditure on the interaction of the arming costs and alliances
- ▶ with some control variables<sup>3</sup> and fixed effects

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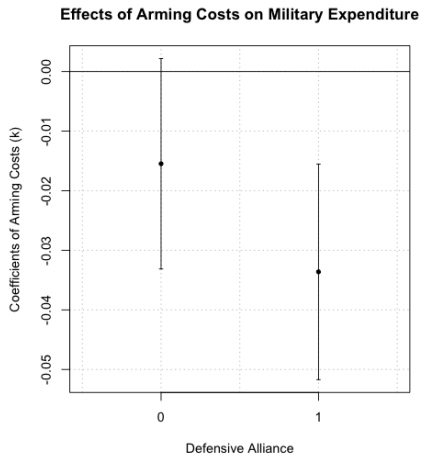
<sup>2</sup>The robustness is checked with a state capacity index

<sup>3</sup>International/civil war, nuclear weapon, rivalry, democracy, GDP, GDP growth, population, and population growth

## Result 2

The results show that

- ▶ The arming costs decrease the military expenditure
- ▶ This negative effect becomes stronger when a state has an alliance



# Conclusion

This paper

- ▶ investigates whether alliances deter preventive war
- ▶ proposes a *screening effect* of alliances with some empirical evidence
- ▶ suggests that alliances as a tool to sustain the world order

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Thank you for listening!



# Appendix: Equilibria

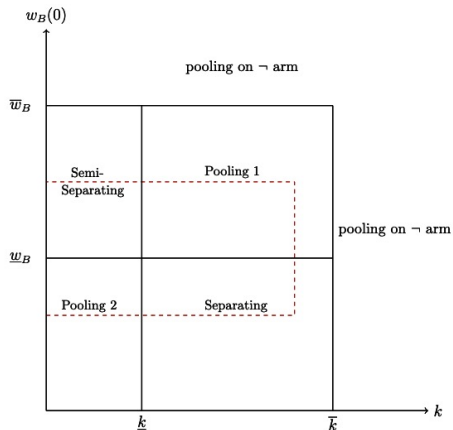


Figure: Equilibrium

# Appendix: Deterrence Effect and Constraining Effect

Figure: Deterrence Effect

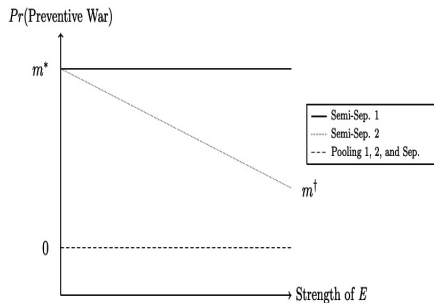
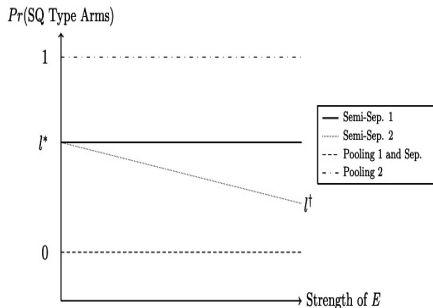
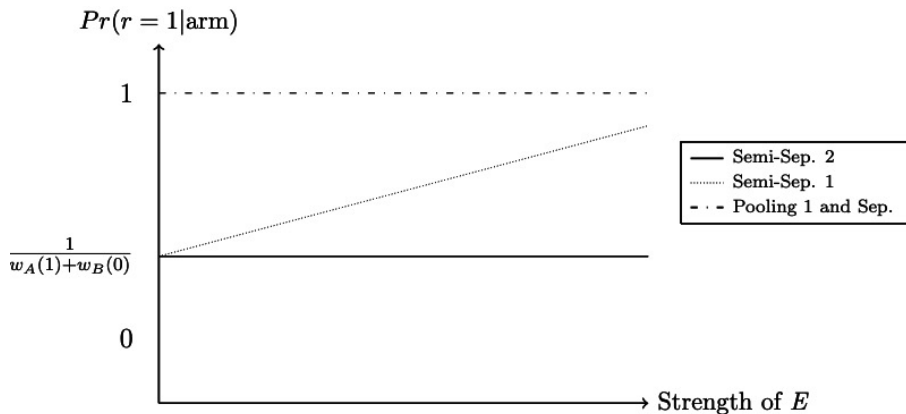


Figure: Constraining Effect



## Appendix: Declining Country's Belief

Figure: B's Belief after arming



# Appendix: Regression Table 1

Dependent Variable: Model:	(1)	(2)	(3)	War (4)	(5)	(6)
<i>Variables</i>						
Expected Power Shift	10.39*** (2.586)	21.66*** (5.960)	10.92*** (3.573)	16.72*** (3.797)	3.515*** (0.8440)	47.08*** (18.27)
Alliance		1.660 (4.162)	-0.4550 (0.4944)	-0.4003 (1.036)	0.1485 (0.6292)	2.273 (4.182)
Alliance × Expected Power Shift			-1.751 (3.768)	-7.809** (3.501)	-1.185 (2.013)	-33.75** (16.95)
Mutual Democracy		-3.842* (2.169)		-4.169*** (1.556)	-1.705** (0.8537)	-6.581 (5.700)
Foreign Policy Similarity		-0.2545 (3.443)		-0.0245 (1.056)	-2.369** (0.9905)	-0.0470 (3.690)
Contingency		18.54*** (2.805)		4.218*** (1.406)	1.816*** (0.4424)	21.25*** (4.119)
Distance		-100.3 (745.3)		-33.78 (145.1)	-0.6536*** (0.1419)	-264.1 (683.5)
Peace Year		0.0831 (0.1091)		-0.0101 (0.0749)	-0.0973* (0.0499)	0.0929 (0.0832)
Peace Year <sup>2</sup>		0.0027 (0.0047)		0.0017 (0.0018)	0.0025** (0.0012)	0.0031 (0.0027)
Peace Year <sup>3</sup>		-2.52 × 10 <sup>-5</sup> (3.48 × 10 <sup>-5</sup> )		-9.82 × 10 <sup>-6</sup> (1.07 × 10 <sup>-5</sup> )	-1.58 × 10 <sup>-5**</sup> (7.84 × 10 <sup>-6</sup> )	-2.76 × 10 <sup>-5</sup> (2.07 × 10 <sup>-5</sup> )

## Appendix: Regression Table 2

Dependent Variable:	ln(Mil. Exp.)			
Model:	(7)	(8)	(9)	(10)
<i>Variables</i>				
Arming Costs	-0.0271 (0.0453)	-0.0267*** (0.0078)	-0.0268*** (0.0081)	-0.0196** (0.0094)
Alliance			0.0737*** (0.0175)	0.0702*** (0.0172)
Alliance × Arming Costs				-0.0116 (0.0096)
International War		0.2237*** (0.0333)	0.2216*** (0.0324)	0.2203*** (0.0324)
Civil War		0.1308*** (0.0311)	0.1334*** (0.0315)	0.1335*** (0.0315)
ln(Mil. Exp.) <sub>t-1</sub>		0.8052*** (0.0178)	0.8027*** (0.0177)	0.8021*** (0.0178)
Nuclear		0.0383 (0.0367)	0.0472 (0.0336)	0.0428 (0.0330)