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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?

$\Leftarrow$ formal model and statistical analysis

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

No discussion on preventive war or protégés

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

Model

Overview

- a rising state (A) chooses to invest in its military capability with some costs ($K = k > 0$)
- a declining state (B) wants to prevent it if the rising state is a revisionist, but not if it is SQ-oriented
- revisionism is private information ($r \in \{1, p\}$)
- a patron (E) as a SQ power 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 of A want to build their arms
  $\rightarrow$ inability to tell the type
- w/ alliances, only revisionist A has the incentive to arm
  $\rightarrow$ arming is a clear sign of revisionism, which would make sure preventive war

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[1] and fixed effects

[1] 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

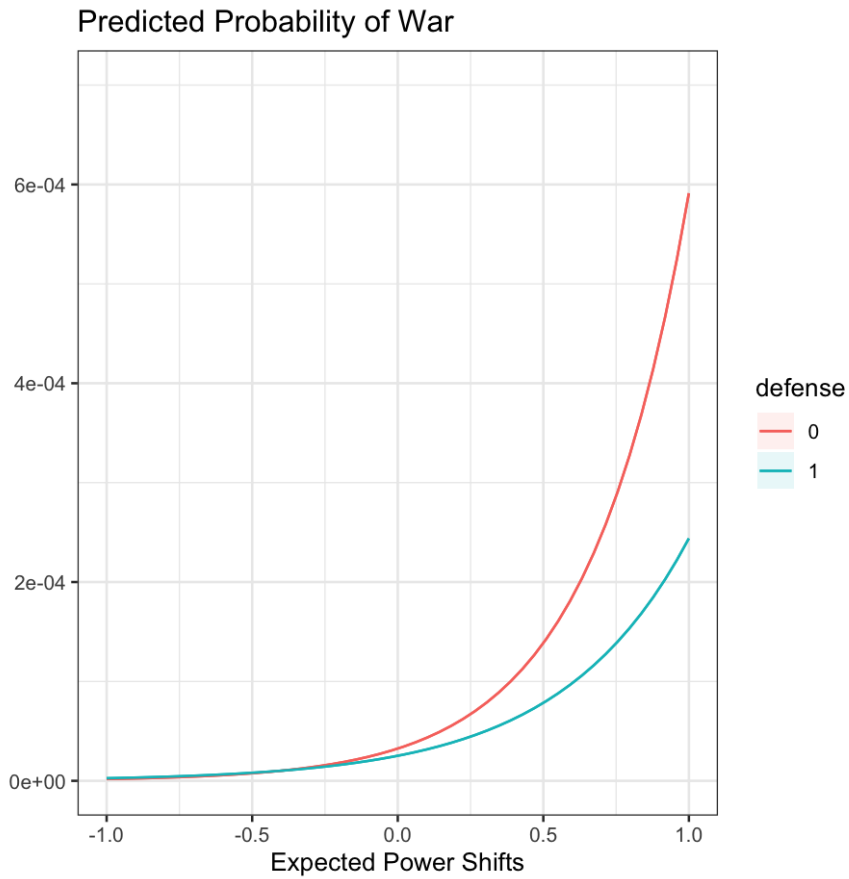


Figure: Predicted Probability of War

Empirical Strategy 2

To test H2, I

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

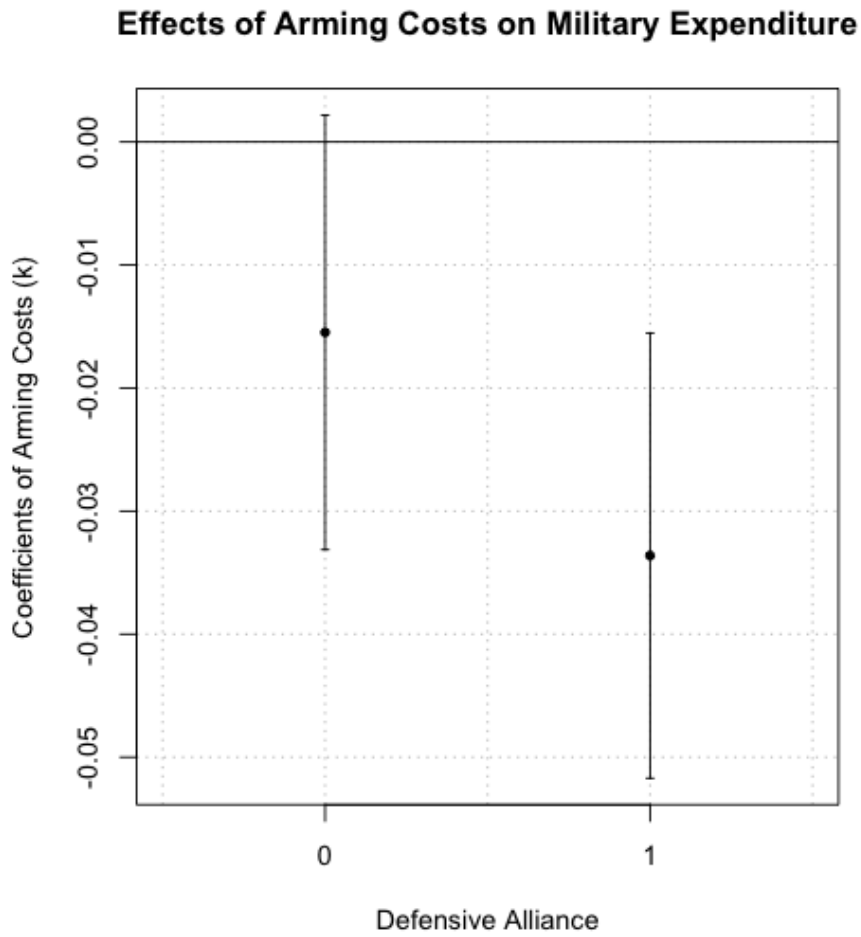
[2] The robustness is checked with a state capacity index

[3] 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 *w*ith some empirical evidence
- suggests that alliances as a tool to sustain the world order

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Thank you for listening!

Appendix: Equilibria

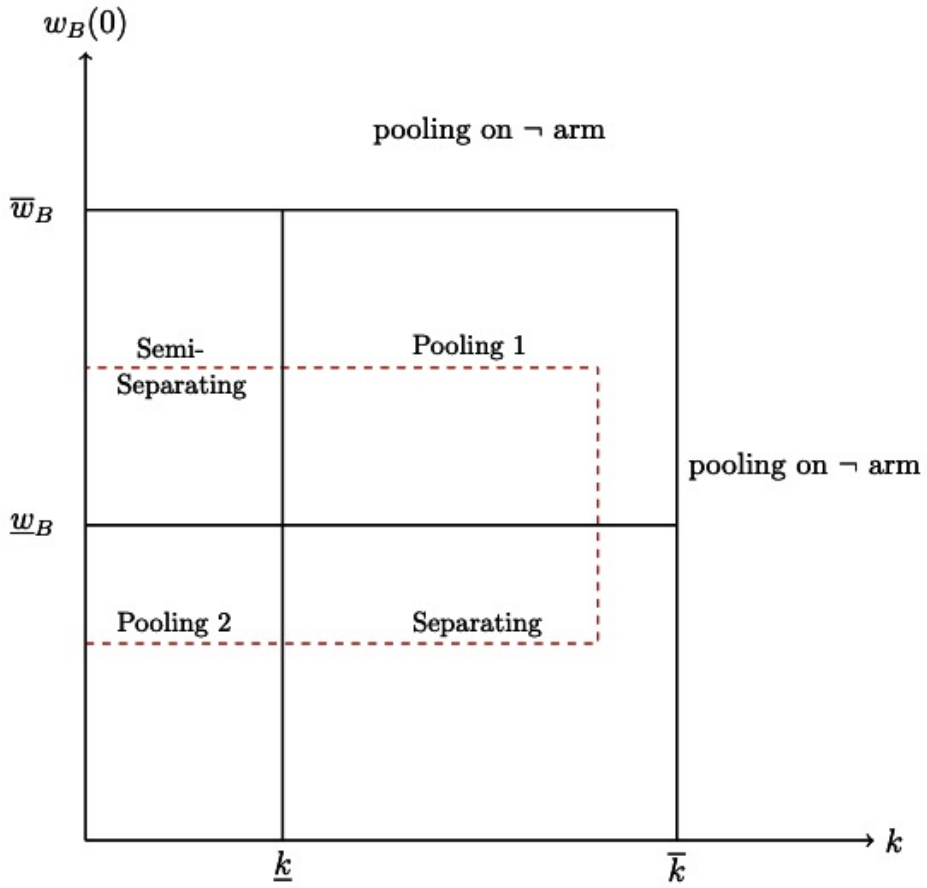


Figure: Equilibrium

Appendix: Deterrence Effect and Constraining Effect

Figure: Deterrence Effect

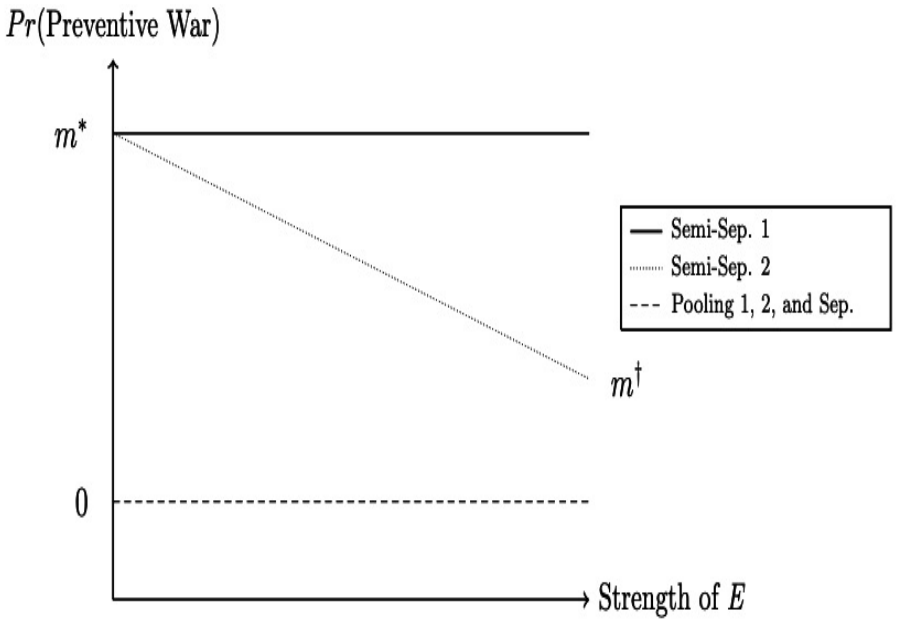
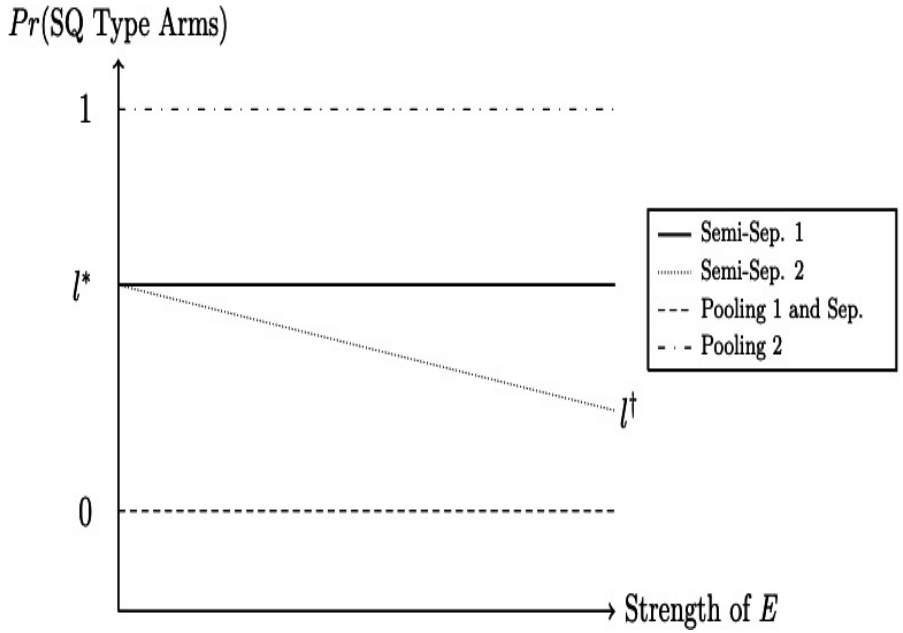
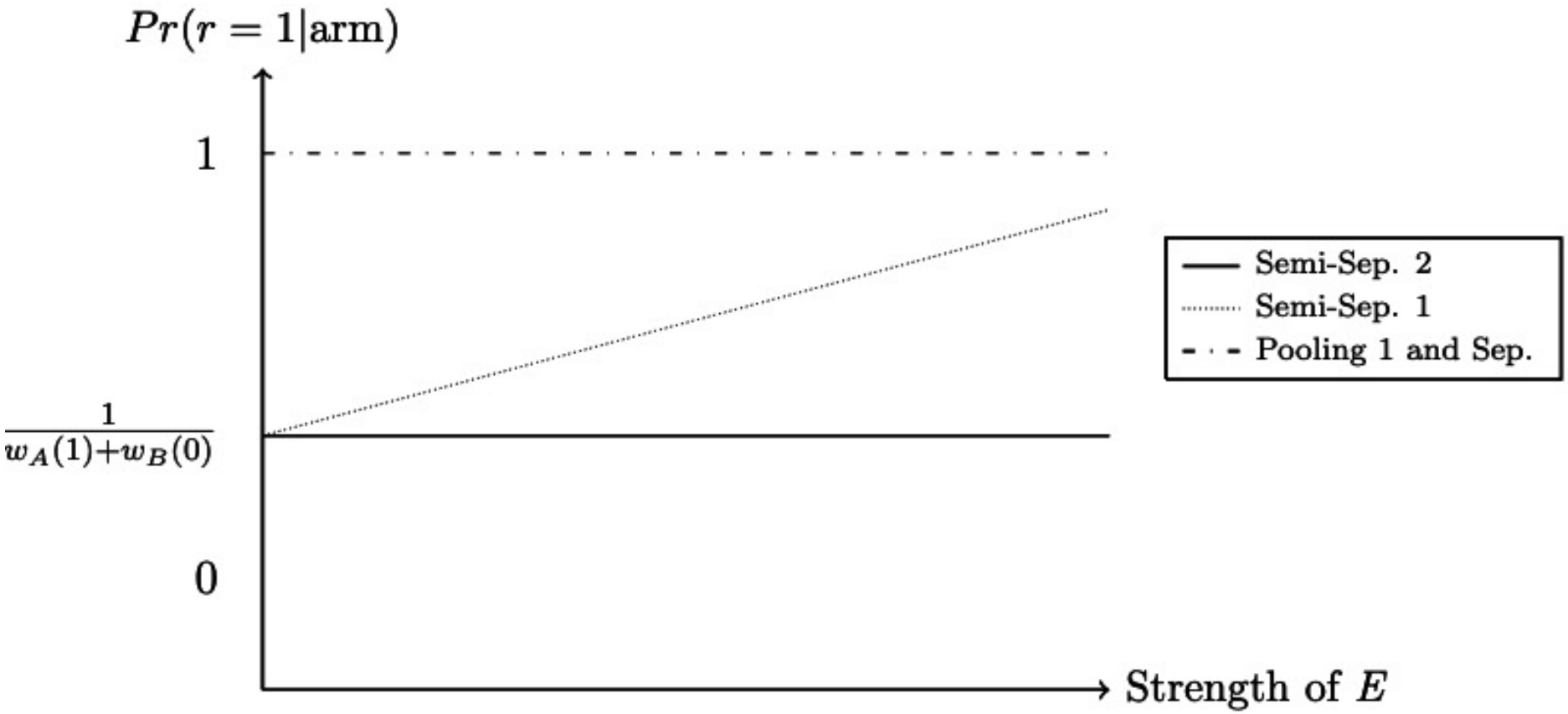


Figure: Constraining Effect



Appendix: Declining Country's Belief

Figure: B's Belief after arming



Appendix: Regression Table 1

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

Appendix: Regression Table 2

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