

Summary of Previous Empirical Work on the Arms-Alliances Tradeoff

Joshua Alley*

July 13, 2018

	Substitutes	Complements	Null
Most and Siverson (1987)			X
Morrow (1993)	X		
Conybeare (1994)	X		
Diehl (1994)		X	
Goldsmith (2003)			X
Morgan and Palmer (2006)		X	
Quiroz Flores (2011)		X	
DiGiuseppe and Poast (2016)	X		
Horowitz, Poast and Stam (2017)		X	

Table 1: General Findings of Association Between Alliance Membership and Military Spending

	Free-Riding	Alliance Scope
Olson and Zeckhauser (1966)	X	NATO 1964
Starr (1974)	X	Warsaw Pact 1967-1971
Reisinger (1983)		Warsaw Pact 1970-1978
Thies (1987)	Mixed	Seven pre-1945 Alliances
Conybeare and Sandler (1990)		Triple Alliance & Triple Entente 1880-1914
Palmer (1990)		NATO 1950-1978
Chen, Feng and Masroori (1996)		Arab League 1950-1988
Oneal and Whatley (1996)	X	NATO, Rio Pact & Arab League 1953-1988
Siroky (2012)		Quintuple Alliance Members 1820
Plümper and Neumayer (2015)	X	NATO 1956-1988

Table 2: Findings on Free-Riding in Alliances. Most of these studies uses military expenditures as a share of GDP for the dependent variable, and assess whether it is correlated with economic size. A positive correlation between GDP or GNP and the defense burden among alliance members is the standard evidence of free-riding.

1 Introduction

2 Arms and Alliances as Substitutes

2.1 Substitution Theory of Foreign Policy

2.2 Public Goods Theory of Alliances

2.3 Assessment of Substitutes Prediction

3 Arms and Alliances as Complements

3.1 Justifications of Complementarity

3.2 Evidence of Complementarity

3.3 Assessment of Complements Prediction

4 Conclusion

4.1 Overall Development

4.2 Future Research

Appendix

Visual Summary of Prior Results

References

- Chen, Baizhu, Yi Feng and Cyrus Masroori. 1996. "Collective action in the Middle East? A study of free-ride in defense spending." *Journal of Peace Research* 33(3):323–339.
- Conybeare, John AC. 1994. "Arms versus Alliances: The Capital Structure of Military Enterprise." *Journal of Conflict Resolution* 38(2):215–235.
- Conybeare, John AC and Todd Sandler. 1990. "The Triple Entente and the Triple Alliance 1880–1914: A Collective Goods Approach." *American Political Science Review* 84(4):1197–1206.
- Diehl, Paul F. 1994. "Substitutes or Complements?: The Effects of Alliances on Military Spending in Major Power Rivalries." *International Interactions* 19(3):159–176.

*Graduate Student, Department of Political Science, Texas A&M University.

- DiGiuseppe, Matthew and Paul Poast. 2016. "Arms versus Democratic Allies." *British Journal of Political Science* pp. 1–23.
- Goldsmith, Benjamin E. 2003. "Bearing the Defense Burden, 1886-1989: Why Spend More?" *Journal of Conflict Resolution* 47(5):551–573.
- Horowitz, Michael C, Paul Poast and Allan C Stam. 2017. "Domestic Signaling of Commitment Credibility: Military Recruitment and Alliance Formation." *Journal of Conflict Resolution* 61(8):1682–1710.
- Morgan, T Clifton and Glenn Palmer. 2006. *A Theory of Foreign Policy*. Princeton: Princeton University Press.
- Morrow, James D. 1993. "Arms versus allies: trade-offs in the search for security." *International Organization* 47(2):207–233.
- Most, Benjamin A. and Randolph M. Siverson. 1987. Substituting Arms and Alliances 1870–1914: an Exploration in Comparative Foreign Policy. In *New Directions in the Study of Foreign Policy*, ed. Charles F Hermann, Charles W. Kegley Jr and James N. Rosenau. Boston: Allen & Unwin pp. 131–160.
- Olson, Mancur and Richard Zeckhauser. 1966. "An Economic Theory of Alliances." *The Review of Economics and Statistics* 48(3):266–279.
- Oneal, John R and Hugh Carter Whatley. 1996. "The effect of alliance membership on national defense burdens, 1953–88: A test of Mancur Olson's theory of collective action." *International Interactions* 22(2):105–122.
- Palmer, Glenn. 1990. "Alliance Politics and Issue Areas: Determinants of Defense Spending." *American Journal of Political Science* 34(1):190–211.
- Plümper, Thomas and Eric Neumayer. 2015. "Free-riding in alliances: Testing an old theory with a new method." *Conflict Management and Peace Science* 32(3):247–268.
- Quiroz Flores, Alejandro. 2011. "Alliances as Contiguity in Spatial Models of Military Expenditures." *Conflict Management and Peace Science* 28(4):402–418.
- Reisinger, William M. 1983. "East European military expenditures in the 1970s: collective good or bargaining offer?" *International Organization* 37(1):143–155.
- Siroky, David S. 2012. "Each Man For Himself? Rival Theories of Alliance Economics in The Early State System." *Defence and Peace Economics* 23(4):321–330.
- Starr, Harvey. 1974. "A Collective Goods Analysis of the Warsaw Pact after Czechoslovakia." *International Organization* 28(3):521–532.
- Thies, Wallace J. 1987. "Alliances and Collective Goods: A Reappraisal." *Journal of Conflict Resolution* 31(2):298–332.