Appendix:
Defense Pacts and Deterrence: Caveat Emptor

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1 Intoduction to the Appendix

This document contains additional information regarding the empirical results reported in "Defense Pacts and Deterrence: Caveat Emptor." In the following section, we report the full set of estimates pertaining to the models used to generate Figure 1. In Section 3, we report an additional model that disaggregates alliances based on the years since their formation. These results are consistent with those reported in the main text.

2 Results Omitted from the Main Text

Due to space constraints, we only reported the quantities of interest from our models in the main text. Table 1 provides these results in additional detail. Recall that all defensive alliances held by the potential target in a directed dyad were divided into two categories: those that have been held since birth, and those that were formed at some point thereafter. Alliances in the former category are those that the target held since the time either the challenger or the target entered the international system. The control variables are drawn from Johnson & Leeds (2011) to maximize comparability.[1]

[1] A minor difference is that we estimate logit, instead of a probit, models and cluster standard errors by directed dyad. Using a probit model does not, however, alter any of the core results.

Table 1: Logit Regression of MID Initiation

	(1) 1816-2000	(2) 1816-1945	(3) 1946-2000
Target has a defensive alliance from birth	-1.327***	-2.216***	-1.112***
	(0.149)	(0.483)	(0.170)
Target has a defensive alliance formed after birth	0.346***	0.230**	0.657***
	(0.087)	(0.113)	(0.140)
Potential challenger has a relevant offensive alliance	0.628***	1.297***	-0.122
	(0.105)	(0.127)	(0.231)
Potential challenger has a relevant neutrality pact	0.877***	0.360**	1.145***
	(0.146)	(0.176)	(0.174)
Logged distance	-0.971***	-0.551***	-1.187***
	(0.042)	(0.042)	(0.083)
Capabilities ratio	0.324**	0.595***	0.148
	(0.134)	(0.186)	(0.187)
Joint democracy	-0.402***	-0.992***	-0.095
	(0.104)	(0.238)	(0.124)
Similarity in alliance portfolios	-0.971***	-0.061	-2.220***
	(0.237)	(0.209)	(0.481)
Peace years	-0.143***	-0.113***	-0.159***
	(0.008)	(0.011)	(0.010)
Peace years^2	0.002***	0.002***	0.002***
	(0.000)	(0.000)	(0.000)
Peace years^3	-0.000***	-0.000***	-0.000***
	(0.000)	(0.000)	(0.000)
Constant	3.322***	-0.476	5.796***
	(0.375)	(0.335)	(0.914)
Observations	1,077,992	211,128	866,864

Robust standard errors, clustered by directed dyad in parentheses.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

3 Disaggregating New Alliances by Years Since Formation

As an additional test, we examine whether the effect of a newly formed alliance varies with time. To determine whether this is the case, we disaggregate all alliances formed after the birth into three groups: those that were formed within the previous five years, those that were formed between six and 15 years ago, and those that were formed more than fifteen years ago.[2] We do this to more directly assess whether alliances are particularly likely to fail shortly after they are formed.

The results from these models are reported in Table 2. Two general patterns are observed across these models. The first pertains to the 1816-1945 period, when the formation of a new alliance significantly increases the likelihood of MID initiation for the first five years, but does not have a statistically significant effect thereafter. In this case, alliances appear to have a pernicious, but short-lived effect on the risk of conflict. This is consistent with the Steps-to-War hypothesis. Even if alliances do have some unobserved deterrent effect, this evidence again suggests that the size of this effect is not sufficient to overwhelm the unobserved factors that are making these cases more likely to experience conflict.

The second pattern obtains in the 1816-2000 and 1946-2000 samples, where signing a new alliance always increases MID initiation, regardless of how much time has passed since formation.[3] In fact, the magnitude of this positive relationship appears to increase with time. This is interesting on two dimensions. First, if alliances are indeed inciting escalatory practices, it appears as though this is occurring over relatively long time horizons in the nuclear era. In other words, the risk associated with alliance formation does not appear to dissipate, but rather grow with time. Second, if these alliances have any deterrent impact at all, it appears to become weaker with time. This is consistent with the notion that alliance commitments become increasingly weak with the passage of time (Smith 1995, Fearon 1997).

As before, we find that alliances in place at the birth of a dyad effectively reduce the occurrence of MID initiation. It is worth restating that these cases are relatively rare in the 1816-1945 sample, and comprised largely of observations featuring the organizational alliances such as the Organization of American States and Arab League in the 1946-200 sample.

[2] These three categories are mutually exclusive. If a state holds multiple such alliances, it is classified based on its youngest alliance.

[3] In the 1816-2000 sample, the positive association in the first five years of formation significant only at the $p < 0.1$ level.

Table 2: Logit Regression of MID Initiation

	(1) 1816-2000	(2) 1816-1945	(3) 1946-2000
Target has a non-independence defensive alliance, years 1-5	0.154*	0.439***	0.299**
	(0.088)	(0.122)	(0.138)
Target has a non-independence defensive alliance, years 6-15	0.276**	-0.081	0.730***
	(0.116)	(0.193)	(0.172)
Target has a non-independence defensive alliance, years16+	0.841***	-0.616	1.330***
	(0.132)	(0.478)	(0.187)
Target has a defensive alliance formed at independence	-1.318***	-2.215***	-1.081***
	(0.149)	(0.483)	(0.172)
Potential challenger has a relevant offensive alliance	0.661***	1.290***	-0.057
	(0.107)	(0.127)	(0.238)
Potential challenger has a relevant neutrality pact	0.875***	0.351**	1.117***
	(0.144)	(0.176)	(0.168)
Logged distance	-0.964***	-0.561***	-1.168***
	(0.041)	(0.042)	(0.083)
Capabilities ratio	0.310**	0.618***	0.127
	(0.134)	(0.186)	(0.183)
Joint democracy	-0.449***	-1.001***	-0.191
	(0.102)	(0.238)	(0.118)
Similarity in alliance portfolios	-1.034***	-0.076	-2.406***
	(0.233)	(0.209)	(0.474)
Peace years	-0.145***	-0.109***	-0.163***
	(0.008)	(0.011)	(0.011)
Peace years^2	0.002***	0.002***	0.002***
	(0.000)	(0.000)	(0.000)
Peace years^3	-0.000***	-0.000***	-0.000***
	(0.000)	(0.000)	(0.000)
Constant	3.359***	-0.431	5.870***
	(0.369)	(0.330)	(0.904)
Observations	1,077,992	211,128	866,864

Robust standard errors, clustered by directed dyad in parentheses.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

References

Fearon, James D. 1997. "Signaling Foreign Policy Interests: Tying Hands versus Sinking Costs." *Journal of Conflict Resolution* 41:68–90.

Johnson, Jesse C. & Brett Ashley Leeds. 2011. "Defense Pacts: A Prescription for Peace?" *Foreign Policy Analysis* 7(1):45–65.

Smith, Allistair. 1995. "Alliance Formation and War." *International Studies Quarterly* 39(4):405–425.