

Tripwires and free-riders:

Do forward-deployed U.S. troops reduce the willingness of host-country citizens to fight for their country?

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Abstract

This article investigates the relationship between U.S. overseas troops and the willingness of the citizens of host states to fight for their country. The study joins the long-running debate about burden-sharing and free-riding among U.S. allies. Unlike most previous empirical studies, we focus on non-material or intangible measures of the underlying concepts. Our dependent variable estimates the proportion of citizens expressing a willingness to fight for their country. Scores at the aggregate-national as well as the individual level are shaped by the presence of U.S. military forces, which act as a “tripwire” signaling credible security commitments. This increases opportunities of (non-material) free-riding. We present both bivariate and multivariate analyses covering the period 1981–2014 to test this supposition. Findings indicate that once U.S. troop levels reach a certain threshold (between 100 and 500

troops), citizens' willingness to fight drops significantly. This likely reflects non-material free-riding.

Key words

willingness to fight; U.S. troops; free-riding; burden-sharing; tripwire; U.S. military bases

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This article investigates to what extent the war willingness of a country's citizens, through processes of non-material or intangible "free-riding," is affected by the stationing of U.S. troops in that country. We will thus shed some light on the recent and ongoing debate about burden-sharing and free-riding among allies of the United States (Dombrowski & Reich, 2017; Kaufman, 2017). Current U.S. President Donald Trump has certainly ratcheted up the rhetoric on this issue, consistently lamenting the lack of defense efforts by allies and even issuing ambiguous threats to withdraw from alliance commitments unless defense efforts are shared more equitably (New York Times, 2017). Still, the debate represents nothing new; claims of free-riding (and counter-claims as well) have for decades affected Washington's alliance relationships (Ringsmose, 2010, p. 319; Sandler & Hartley, 2001, pp. 871-872; Tonelson, 2000, pp. 31ff.). Are the claims, then, substantiated by the empirical evidence?

Results from investigations into the matter, the bulk of which center on the North Atlantic Treaty Organization (NATO), are mixed. Taken as a whole, the literature suggests that the sharing of defense burdens varies over time (and among countries), depending on such factors as the balance of power, perceptions of the threat environment, and the specifics of U.S. (and NATO) grand strategies (Khanna & Sandler, 1997; Olson & Zeckhauser, 1966; Oneal, 1990; Sandler & Shimizu, 2014; Zyla, 2016). The vast majority of studies focus on purely *material* burden-sharing, normally using as a proxy defense budgets as a share of gross domestic product. This is a relevant and highly accessible measure. It is nonetheless insufficient in that it fails to capture important *non-material* dimensions of the underlying concepts. Free-riding and burden-sharing are not exclusively about money and military hardware. They say nothing about the all-important question of *intentions* – of allies' willingness to fight for the alliance or for their own country. Effective war-fighting and deterrence also hinge on what prominent International Relations scholars variously call "balance of resolve," "strength of will" (von Clausewitz, 1832/2007, p. 16), "patriotic

altruism” (Niebuhr, 1932/2005, p. 62), or “national character” and “national morale” (Morgenthau, 1948/2006).

We use an alternative measure of burden-sharing and free-riding, namely *willingness to fight*. This is based on a question included in the World Values Survey, a global data and research project that has hitherto run from 1981 to 2014. The question of relevance here, asked to representative samples of citizens from over 100 countries and territories, goes as follows: *Of course, we all hope that there will not be another war, but if it were to come to that, would you be willing to fight for your country? (yes = 1; no = 0)*. In some models, which include controls at the aggregate national level, we use country averages representing the proportion of people answering yes; in others we adopt a multilevel approach that also controls relevant individual-level variables. The relationship we are after is that between *willingness to fight* and our study’s main independent variable: the number of forward-deployed U.S. troops in the countries in question. While we also test the effect of alliance ties with the U.S. – that is, irrespective of the existence of U.S. military bases – for theoretical reasons we particularly focus on the U.S. troops variable(s). We are especially interested in the “tripwire” effect that follows from the presence of U.S. soldiers in foreign countries. Host states of U.S. troops, in particular hosts of major bases, can presumably have substantial faith in U.S. commitments to come to their defense if they are attacked. This faith in the credibility of U.S. promises, moreover, also works to increase the scope for and likelihood of defense free-riding by the host or client states. For the citizens of host countries, then, the stationing of U.S. troops should reduce their willingness to fight.

We put this supposition to the empirical test. The bivariate models suggest a reasonably strong relationship (although parts of it are driven by the “special” cases of Germany and Japan, the big losers of World War II). The multivariate analysis substantiates this finding: When U.S. troop levels reach a certain threshold – somewhere above 100 but

seemingly below 500 – citizens’ willingness to fight for their country drops significantly. In a non-material sense, therefore, the forward-deployment of U.S. forces contributes to free-riding by the allies of the United States.

U.S. bases, overseas troops, and burden-sharing

A handful of recent, quantitative empirical studies have investigated the various types of effects of U.S. overseas basing. Starting with two articles by Biglaiser and DeRouen (2007, 2009), who found that U.S. foreign direct investment and trade, respectively, tend to “follow the flag,” others have investigated the impact of U.S. military presence on the host nations’ economic growth rates (Jones & Kane, 2012); economic and social development (Kane, 2012); levels of crime (Allen & Flynn, 2013); institutional quality (Braithwaite & Kucik, 2017); human-rights protection (Bell, Clay, & Machain, 2016); and transnational terrorism (Braithwaite, 2015). Operating closer to the theme of the present study, Machain and Morgan (2013) find that increased levels of U.S. troops, which function as a tripwire that bolsters U.S. commitments to provide for its ally’s security and defense, somewhat reduce the hosts’ own troop levels. Two recent contributions by Michael Allen and colleagues apply a related focus (Allen, VanDusky-Allen, & Flynn, 2016; Allen, Flynn, & VanDusky-Allen, 2017): They investigate how U.S. troop deployments affect the defense burden (operationalized as military expenditures) of hosts. They find that the effects are conditional both on U.S. troops deployment in neighboring countries and on the tightness of the security relationship between the United States and the host in question.

The economic theory of alliances: Burden-sharing versus free-riding

The latter three studies touch upon debates about classic issues of burden-sharing, free-riding, and choices of “guns versus butter,” which are also natural topics to review here. The

literature on alliances is a relevant theoretical point of departure. This literature, in turn, is based on Mancur Olson's (1965) famous work on collective action. Olson's main contention was that collective or public goods – that is, non-excludable and non-rivalrous goods or services that, if provided, can be enjoyed by every member of a group – tend to be under- or non-supplied (in the absence of coercion) due to the free-riding incentives they produce.

Two qualifications are vital, though. First, voluntary cooperation – that is, the sharing and bearing of costs – is easier to achieve in small groups where at least one of the group members “will find that his personal gain from having the collective good exceeds the total cost of providing some amount of the collective good” (Olson, 1965, p. 34). Second, collective-goods provision is more likely in (smaller) groups containing members of an unequal size or degree of interest in the good in question. Both of these qualifications are of particular relevance to (military) alliances, which tend to be both small-*N* and asymmetric. That is, empirically, neither the provision of the collective good (i.e., security or defense) – which, as it is formally excludable to non-members of the alliance, is really a *club* or *organizational*, and not strictly a *public* goodⁱ – nor the extent of free-riding is given *a priori*. Theoretically, however, we can expect that collective defense produces some degree of free-riding. This was also the main point in a subsequent, co-authored work by Olson that, focusing on the North Atlantic Treaty Organization (NATO), outlined the economic theory of alliances (Olson & Zeckhauser, 1966). This theory, in turn, gave rise to a number of studies debating and testing the prevalence of alliance burden-sharing and free-riding.

The collective good sought by military alliances is common security or defense; each alliance member is usually expected to take on its “fair” share of the burden related to the provision of the good. Defense burden, while a somewhat diffuse concept, is normally perceived in terms of defense costs undertaken; military expenditures as a share of gross domestic product (GDP) is the common way of operationalizing it (Gates & Terasawa, 2003;

Olson & Zeckhauser, 1966; Oneal, 1990). Indeed, the recent debate, or conflict, about alleged free-riding by U.S. allies has revolved primarily around the issue of low defense budget-to-GDP ratios (Kaufman, 2017, p. 264; Zyla, 2016, p. 317). This is, to be sure, nothing new. Concerns and quarrels about defense spending have for decades, and especially following Olson and Zeckhauser's (1966) study, been a consistent feature of U.S. alliance relationships.

Empirical investigations, focusing on NATO, have not been univocal on this issue, though. Following Olson and Zeckhauser's (1966) original test that uncovered an unequal burden-sharing, others have found some support for this in subsequent periods as well (Oneal, 1990). Still, a number of tests suggest a more equal burden-sharing after 1967 and NATO's implementation of the "flexible response" strategy (Khanna & Sandler, 1997; Sandler & Forbes, 1980; Sandler & Shimizu, 2014). The end of the Cold War, NATO's out-of-area operations, and the "War on Terror," however, seemingly inaugurated another period of free-riding on the U.S. patron – or of "exploitation of the rich by the poor allies" (Sandler & Shimizu, 2014, p. 45).

The presumed periodicity of this phenomenon points to dynamics that may help shape the distribution of defense burdens in alliances. First, the observation that NATO burden-sharing increased with "flexible response," a strategy by which NATO would deter the Soviet Union and its allies by a more tailored mix of nuclear and a variety of conventional weapons, was explained by the *joint product model of alliances* (Murdoch & Sandler, 1982; Sandler & Forbes, 1980). This pointed out that the new strategy, which lessened the emphasis on a major nuclear response to any significant Warsaw Pact transgression, created joint products or goods that were less public and more country-specific, and thus more excludable. The introduction of such semi-private defense goods were thought to dampen "the extent of free riding as NATO allies [had to] reveal a preference if they [were] to benefit from the defense activity of the alliance" (Sandler & Shimizu, 2014, 46).

Second, weaker allies seek credible guarantees or commitments from the patron and therefore have to factor in the long-term costs of renegeing on their own alliance commitments (Palmer, 1990). This surely helps explain why many NATO members have contributed fairly substantially to “out-of-area” operations after the Cold War. Alliance products are, to some extent, linked; any future fulfillment of defense pledges by the U.S. evidently rests on allies’ ongoing willingness to reciprocate (Lake, 2009b, p. 42). This is implied by and formalized in the North Atlantic Treaty. This includes articles that stress the *mutuality* of defense efforts. The Treaty also only vaguely spells out commitments, formally lending the U.S. some leeway with regard to its exact obligations (Beckley, 2015, p. 18). This heightens the fear among allies that they might, in any future crisis, be abandoned by the patron (Snyder, 1984).

Third, and linked to the above, some of the variation in material defense burdens taken on by allies can be explained in terms of the variety of ways “commitments” or “reciprocity” can be understood. Some argue that we should not expect alliances to lead to the simple aggregation of material capabilities for security ends (Morgan & Palmer, 2003; Morrow, 1991; Nieman, 2016). This is particularly true for asymmetric alliances. In such hierarchical interstate relationships it might be the case that neither the dominant nor the subordinate member will view internal balancing as a cost-effective way for the latter to spend its scarce resources. The subordinate’s resources may instead be allocated more usefully to other instruments contained in the bundle or portfolio of available policies. In particular, one would expect that, to reciprocate the stronger’s offer of increased security, the weaker party will make important policy concessions on related or non-related issue areas – such as access or basing rights, financial contributions to the alliance, or, more generally, offers to align its foreign policies closer to the dominant state (Morrow, 1991; Nieman, 2016). In other words, alliance decisions are affected by a trade-off between autonomy and security. This sometimes implies that, say, a low defense spending-to-GDP ratio on the part

of the subordinate does not necessarily signify free-riding; it rather demonstrates the substitutability of foreign-policy instruments.

Burden-sharing, free-riding, and overseas U.S. troops

The theories referenced in the preceding paragraph also help shed light on the empirical findings of Allen, VanDusky-Allen, and Flynn (2016). Their article on the relationship between U.S. troops deployments and defense burdens, which in part draws on Lake's (2009a) work on the hierarchical nature of interstate security relationships, hypothesizes and finds that, in asymmetric alliances, the deployment of U.S. troops is negatively correlated with the hosts' defense spending. The subordinate, however, trades off a portion of its foreign-policy autonomy to obtain the extra measure of security provided by the U.S. troops. Contrarily, within NATO, an alliance whose relationship to the most powerful member state, the United States, is relatively balanced or symmetrical, the deployment of U.S. troops actually *increases* the hosts' defense spending (while leaving its foreign-policy autonomy more or less unaffected). Machain and Morgan (2013) provide related empirical and theoretical nuances. Theoretically, they draw on the "two-good" theory of foreign policy, which, *inter alia*, highlights how a state's foreign-policy decisions affect the foreign-policy decisions of other states – sometimes in complex and counterintuitive ways (Morgan & Palmer 1997, 2003, p. 186; Palmer & Morgan, 2006). Empirically, they find that U.S. troop deployments abroad generally lead to a decrease in the hosts' own troop levels (which concomitantly increases the resources that can be devoted to other foreign-policy issues, notably conflict initiation).

The empirical studies cited here, and the theories on which they are based, thus suggest that the relationship between U.S. forward-deployed troops and "free-riding" by hosts is far from straightforward. An unequal material burden-sharing, or what appears to be

so, “may contradict some of the original aims of the United States when deploying its troops” (Machain & Morgan, 2013, p. 117). But it may also simply reflect that neither the U.S. nor its (weaker) allies will always view the *mutual* provision of security or defense as an expedient way to allocate their resources. That is to say, the concept of burden-sharing may also encompass other, less tangible policy concessions made by the subordinate state. This problem, however, should be more salient when burden-sharing and free-riding are conceived of as material – that is, as highly tangible – concepts (such as defense spending as a share of GDP, or troop levels). These are eminently measurable factors the level over which the United States has at least a degree of influence. With regard to the *attitudes* and *norms* of the host country’s populace, which constitute the dependent variable in the present study, the United States can certainly not have any direct influence. This implies that, if the deployment of U.S. troops is associated with a lowering of citizens’ willingness to fight for their country, the latter cannot as easily be compensated by policy concessions in other areas. Thus, free-riding, under the host’s expectation that the United States will (almost) automatically help repel any external attack, might be more prevalent in its non-material or intangible version.

All else being equal, the presence of forward-deployed troops should provide a level of U.S. credibility that alliances or defense pacts cannot offer. The client state’s leverage over the patron will, in general, “be all the more effective once an ally has invested heavily in the relationship” (Walt, 1987, p. 44). Military bases, and surely the large ones, signal at least one of two things in this respect. First of all, in some cases a major part of their rationale is to provide a “tripwire” – or a “plate-glass window” (Schelling, 1960/1980, p. 119) – that credibly conveys to any enemy of the client state that an attack on the latter will most likely draw in the United States (Calder, 2007, p. 219; Machain & Morgan, 2013, p. 104). This was surely a major motivation behind the U.S. forces that were stationed in Western Europe during the Cold War. In the words of Thomas Schelling, who originally laid out the

underlying logic of tripwires (Schelling 1960/1980, Chapter 8), U.S. commitments were drastically bolstered by forward-deployed troops, which were “plainly visible” and “manifestly connected up to the machinery of war” (Schelling, 1966/2008, p. 99). These tripwires needed not be working automatically in order to serve as an effective deterrent against the Soviet Union; and the deployed forces did not need to be overly huge either. Limited forces would suffice to create “a graduated series of trip wires, each attached to a chance mechanism, with the daily probability of detonation increasing as the enemy moves from wire to wire” (Schelling, 1960/1980, p. 192). The same rationale – limited forces and a high but far from one-hundred-percent likelihood that the United States will help fight any external attack – still underlies U.S. bases, including in states such as Japan, South Korea, and recently Poland as well.ⁱⁱ When U.S. troops are placed “in harm’s way,” deterrence is markedly strengthened. But so, too, is the client’s knowledge that abandonment is not a very realistic option for the patron. The scope for free-riding is therefore inevitably linked to the tripwire mechanism.

Second, and arguably representing a more prevalent mechanism, the presence of U.S. military facilities and troops also reflects the geostrategic importance of the host and indeed usually also of the surrounding region or sub-region. Measured in terms of importance to the United States, and perforce therefore echoing Washington’s willingness to come to its defense if need be, a state hosting U.S. troops might eclipse formal allies of the United States even if the former is not party to such a formalized alliance. This is, for example, the case with Singapore. While not a formal ally of the United States, it still hosts a vital U.S. naval base and some 220 U.S. troops, and it straddles an extremely important waterway. This likely means that the scope of the U.S.–Singapore relationship “can now be viewed as being considerable greater than that which exists between the United States and its lesser regional alliance partners” (Rahman, 2014, p. 121). The potential for free-riding, therefore, is not

necessarily contingent upon any formalized alliance partnership with the United States. It might, however, be linked to the presence of U.S. military forces.

This again points to the complexity of alliance relationships and partnerships, and of burden-sharing and free-riding. If, as is the case with Singapore and many others, a host state is considered vital to the United States's broader geostrategic aims, playing host can *in itself* be considered a concession made by the weaker state (Morrow, 1991, p. 905, 916). This implies that we cannot automatically regard a relatively low level of military spending by the host as signifying the absence of true burden-sharing. In a few cases, moreover, with Japan serving "as the classic example," demilitarization of the host state was indeed one of the key goals associated with the U.S. alliance and the stationing of U.S. troops (Allen, VanDusky-Allen, & Flynn, 2016, p. 677). Hence the U.S. has generally not expected Japan to spend a substantial share of its national income on defense (and, according to data from the Stockholm International Peace Research Institute, this ratio has not exceeded 1.1 percent since the late 1950s).ⁱⁱⁱ But surely Japan has contributed significantly in other ways to the alliance; generally by aligning its foreign policies closely to those of the United States, but also by shouldering around three-quarters of the U.S.'s basing costs (Cooley, 2008, p. 48).

In other words, it is not a straightforward exercise to derive free-riding motives from defense spending. The latter can clearly not be viewed in isolation from the overall alliance relationship or from the bundles of policy instruments and types of possible concessions available to subordinate states (Machain & Morgan, 2013; Palmer & Morgan, 2006). As noted earlier, though, the norms and attitudes of host-country citizens operate more independently from the pressures of alliance politics – and they certainly cannot be considered part of any negotiations about policy concessions. In the next section, we discuss the importance of such intangible factors to states' defense efforts.

An alternative measurement of free-riding: Willingness to fight

When measuring defense burdens, the relevant empirical literature has consistently focused on the pecuniary dimension; the client's defense budget as a share of GDP has been the standard way of operationalizing the concepts (Gates & Terasawa, 2003; Olson & Zeckhauser, 1966; Oneal, 1990), although there does exist a large number of other possible economic-military indicators (for a list, see Hartley & Sandler, 1999, pp. 679–80).

Yet, free-riding and burden-sharing need not only revolve around the issue of money. In fact, such quantitative measures are problematic in at least two respects. First, the list of possible economic-military indicators is long, and conclusions on burden-sharing will often vary greatly depending on the measure chosen (Hartley & Sandler, 1999, p. 673). Second, such indicators, in and by themselves, say little or nothing about the vital question of *intentions*, or of the willingness to fight for the alliance or for one's country. In times of war, though, non-material factors may easily override material ones (Hallams & Schreer, 2012, p. 315). This can surely be true for alliances, for the formation of an alliance does not necessarily indicate "whether its terms will be honored in the moment of truth" (Mandelbaum, 1988, p. 94).

At issue here are intangibles that Hans Morgenthau, in *Politics Among Nations*, called "national character" or "national morale" (Morgenthau 1948/2006). Another classic, Carl von Clausewitz's *On War*, similarly devoted much space to the question of *will*. This is an intangible factor but a critical one nonetheless, for "[i]f you want to overcome your enemy you must match your effort against his power of resistance, which can be expressed as the product of two inseparable factors, viz. *the total means at his disposal* and *the strength of his will*" (von Clausewitz, 1832/2007, p. 16). And a third classic, Reinhold Niebuhr's (1932/2005) *Moral Man and Immoral Society*, offered a comprehensive discussion of what he called collective or national egoism (vis-à-vis other nations), which is really individuals'

altruism on behalf of their nation – “patriotic altruism” (p. 62) – for which they are willing to make enormous sacrifices.

To the extent that such a collective, *national* morale – or collective will to sacrifice – can be said to exist at all, it will certainly hinge on many factors. Some argue, for example, that a “culture of peace” has become an internalized trait of most rich and democratic societies (De Rivera, 2004; Huth & Allee, 2002; Rummell, 1995). Germany and Japan, both rich and both democratic, are often highlighted as standout examples of countries whose “shared historic experiences” (Puranen, 2014, p. 270) – that is to say, violent imperial expansion followed by resounding defeat in the Second World War (Paez, Liu, Techio, Slawuta, Zlobina, & Cabecinas, 2008) – have helped shape and maintain a “postwar culture of anti-militarism” (Berger, 1993, p. 120). Others argue to the contrary, that the alleged pacifism among World War II losers can be better explained by the fact that U.S. security guarantees, and specifically the forward-deployment of U.S. troops, essentially substitute for domestic defense efforts (Lind, 2004; Midford, 2002). In other words, the stationing of U.S. military personnel may in these cases – and possibly in others as well – lead to non-material or intangible “free-riding” by the host country and its populace. In the next main section we present an empirical analysis of just this hypothesized general mechanism. There, we investigate, by way of both bivariate and multivariate analyses, the relationship between forward-deployed U.S. troops and the willingness of citizens to fight for their country.^{iv}

Empirical analysis

This section is divided into three parts. The first describes the data and variables used. The second shows some descriptive statistics, and it also explores some bivariate patterns illuminating the relationship between forward-deployed U.S. troops and citizens’ war willingness, which might be conditioned by values on other variables. The third part of the

section exhibits results from multivariate regression analyses, using both a national-aggregate level and a multilevel approach.

Data and variables

Data on the dependent variable – *willingness to fight* – as well as on two of the controls are from the World Values Survey (WVS) (Inglehart et al., 2014).^v This is a global project that collects data, through face-to-face interviews, on a broad range of values for (adult) citizens of about one hundred countries. The survey has heretofore come in six waves; the first one started in 1981, the last one finished in 2014 (a seventh wave is forthcoming in 2018).^{vi}

Dependent variable: Willingness to fight

The dichotomous survey question on which the dependent variable – *willingness to fight* – is based reads as follows: *Of course, we all hope that there will not be another war, but if it were to come to that, would you be willing to fight for your country? (yes = 1; no = 0)*. The question has been part of the WVS questionnaires throughout all six waves. In the multilevel models, the dependent variable is measured at the lowest, non-aggregated level; thereby we can account for whether or not self-reported willingness to fight, when controlled for other, prominent individual-level variables, is also conditioned by country-level factors, including the presence of U.S. troops. In the first set of models, though, we use data that are aggregated into country(-year) averages, resulting in a total sample of 282 observations. These averages represent the percentage (or, in the regression analysis, proportion) of citizens answering “yes” relative to those with a “no” answer. (Non-valid observations, including those where respondents declined to answer, were treated as missing and thus disregarded before these calculations, so the sum of “yes” and “no” percentages for each country-year is 100.) For the whole sample over the entire period 1981–2014, the average score is 71.74.

Willingness to fight is the only measure of relevance that is available for such a large group of countries over such a long period of time. One caveat raised by others is that the question is somewhat vague with respect to the *type* of war under consideration (Jakobsen, Jakobsen & Ekevold, 2016, p. 977). We believe it is reasonable to surmise that most respondents will interpret the question as relating to a war of self-defense. If that is the case, it should work to bolster the variable's relevance for this study. This is so because our aim is to investigate the effect that a U.S. overseas military presence has on the free-riding proclivities of host countries. What is implied is that the hosting of U.S. troops affects the willingness to fight for *one's own* defense; the presence of U.S. bases need not be connected to the host's willingness to contribute to, say, out-of-area operations or the fighting in defense of other alliance members.

Independent variable: U.S. troops

The main independent variable of this study is *UStroops*. The data are extracted from three different sources and provide a snapshot of the number of forward-deployed U.S. soldiers (active-military duty) in a given country on September 1st each year; hence the count is of troop-years or "billets."^{vii} As it is not *a priori* clear what threshold of troops, if one exists at all, is sufficient to create a "tripwire effect," we specify four different versions of the independent variable. The first, which considers "that the effect of troops on other variables has diminishing returns to scale" (Kane, 2012, p. 260; see also Braithwaite, 2015), takes the natural logarithm of U.S. troops (*UStroopsL*). The second is a dummy taking the value 1 if the number of troops is one hundred or more (*UStroopsD100*). Virtually every country in the world has some presence of U.S. soldiers, if only to protect U.S. embassies; but for the vast majority, the number is too small to be of any relevance here (for example, in 2017, Russia hosted 19 U.S. troops, China 12). A closer look at the data suggests that it makes sense to use

100 U.S. troops as the lowest cut-off point (see also Calder, 2007, p. 66). This number implies that ties with the U.S. are fairly close (moreover, numbers do not include auxiliary civilian personnel), but they are not necessarily sufficient to create any tripwire effect. We therefore specify two additional dummies using the cut-off points 500 (*UStroopsD500*) and 1,000 (*UStroopsD1000*). *Table 1* shows the number of U.S. troops and the score on *willingness to fight* for all WVS-participating country-years with at least 100 U.S. troops (we exclude the U.S. itself from all analyses, whereas Iraq lacks data on some of the other independent variables and is therefore not included in the multivariate analyses). A total of 76 country-years fall within this category.

Table 1. Number of U.S. troops and score on *willingness to fight* for WVS-participating countries with over 100 U.S. troops, 1981–2014

Country	Year	U.S. troops	Willingness to fight (%)	Country	Year	U.S. troops	Willingness to fight (%)
Australia	1981	657	75.00	South Korea	1982	39,194	91.89
Australia	1995	314	74.61	South Korea	1990	41,344	86.97
Australia	2005	196	62.79	South Korea	1996	36,539	82.24
Australia	2012	346	63.87	South Korea	2001	37,605	74.60
Bahrain	2014	335	51.00	South Korea	2005	30,983	72.21
Belgium	1981	2,081	34.17	South Korea	2010	28,500	68.34
Belgium	1990	2,300	39.31	Kuwait	2014	789	81.42
Bosnia & Herz.	1998	6,912	80.63	Macedonia	1998	442	83.21
Bosnia & Herz.	2001	3,116	74.34	Macedonia	2001	351	80.08
Canada	1982	642	63.86	Netherlands	1981	2,466	57.19
Canada	1990	560	67.99	Netherlands	1990	2,745	69.30
Canada	2000	156	65.90	Netherlands	2006	591	48.08
Canada	2006	133	59.27	Netherlands	2012	374	49.48
Croatia	1996	4,007	79.54	Norway	1982	194	89.53
Croatia	1999	145	84.54	Norway	1990	215	91.35
Egypt	2008	284	78.41	Norway	1996	104	88.57
Egypt	2013	240	58.24	Philippines	1996	138	88.07
Germany	1981	248,466	46.55	Philippines	2012	143	82.44
Germany	1990	227,586	46.23	Portugal	1990	1,669	67.99
Germany	1997	60,053	49.54	Puerto Rico	1995	2,771	71.15
Germany	1999	65,538	41.40	Puerto Rico	2001	2,796	75.95

Germany	2006	64,319	34.03		Qatar	2010	555	98.01
Germany	2013	41,701	45.76		Serbia	2001	5,679	72.13
Hungary	1998	1,379	69.31		Serbia	2005	1,801	61.19
Iceland	1984	3,117	74.27		Singapore	2002	167	86.57
Iceland	1990	3,196	77.16		Singapore	2012	154	75.80
Iraq	2004	134,000	37.23		Spain	1981	8,651	66.45
Iraq	2006	185,500	37.23		Spain	1990	6,986	62.50
Italy	1981	12,179	35.66		Spain	1995	2,799	58.82
Italy	1990	14,204	31.27		Spain	2000	2,007	43.01
Italy	1999	11,530	60.13		Spain	2007	1,286	44.67
Italy	2005	11,841	43.36		Spain	2011	1,479	32.43
Japan	1981	46,196	32.75		Thailand	2013	104	89.08
Japan	1990	46,593	20.27		Turkey	2007	1,594	97.07
Japan	1995	39,134	24.20		Turkey	2011	1,491	86.06
Japan	2000	40,159	25.09		UK	1981	25,101	68.87
Japan	2005	35,571	24.63		UK	1990	25,111	74.42
Japan	2010	34,385	28.19		UK	2005	10,752	62.08

We are also interested in the comparable impact of U.S. alliance ties, which may or may not involve the presence of U.S. troops. We therefore constructed one dummy variable coding membership in the North Atlantic Treaty Organization (*NATO*), as well as one broader variable coded 1 for every country with which the United States has a formalized defense pact (*USdefpact*).^{viii}

Control variables

A handful of factors might confound or account for any relationship between *UStroops* and *willingness to fight*. In the statistical analysis, two sets of models are specified. Following the “rule of three,” which recommends parsimonious models (Achen, 2005), the first batch uses three theoretically salient controls. First, we control for level of democracy, which is vital given previous findings that regime type helps shape citizens’ norms regarding the use of war as an instrument of foreign policy (Jakobsen, Jakobsen, & Ekevoid, 2016). The Polity Democracy Index – named *democracy* here – is extracted from the Polity IV Project and runs from -10 (full autocracy) to +10 (full democracy) (Marshall, Gurr, & Jaggers, 2010).^{ix}

Second, from the World Values Survey we include a measure that reflects citizens' confidence in their country's armed forces (*Confidence military*). This is a four-category variable that ranges from "A great deal" (1) to "None at all." Third, we need to control threat perceptions. In the base models we do this by including a dummy variable that is coded 1 for states that use mandatory military recruitment or conscription (*conscriptio*n). We assembled the data based on information from multiple sources.^x Considering that the sample average on the dependent variable changes over time, moreover, models include dummy variables for WVS waves (wave 4 is the omitted category).

We also run a set of extended, multilevel (i.e., two-level) models with additional, theoretically plausible variables. These measures come in two groups. At the individual level, we control six WVS variables highlighted by the literature as potentially influential determinants of willingness to fight (Inglehart, Puranen, & Welzel, 2015; Jakobsen, Jakobsen, & Ekevo

ld, 2016). The first is *confidence military* in its non-aggregated version. We also control nationalist or patriotic sentiments, which might well be correlated with militarism or willingness to fight (Orford, 2017, p. 290; Solt, 2011, p. 829). The variable *national pride* is based on the question: *How proud are you to be [nationality]? (1) Very proud; (2) Quite proud; (3) Not very proud; (4) Not at all proud.* (We recoded the variable so that high scores reflect high national pride.) We also include controls for gender (*woman*) and age (*age*), expecting that both exhibit a negative relationship to the dependent. The fifth individual-level control is (personal) *income*, which the WVS measures on a ten-point scale. Finally, following Inglehart, Puranen, and Welzel (2015), we account for *pro-choice*, which is an additive index capturing respondents' attitudes toward abortion, divorce, and homosexuality. We expect that positive attitudes (i.e., high scores) on *pro-choice*, which presumably reflect a high valuation of rising life opportunities, correlate negatively with *willingness to fight*.

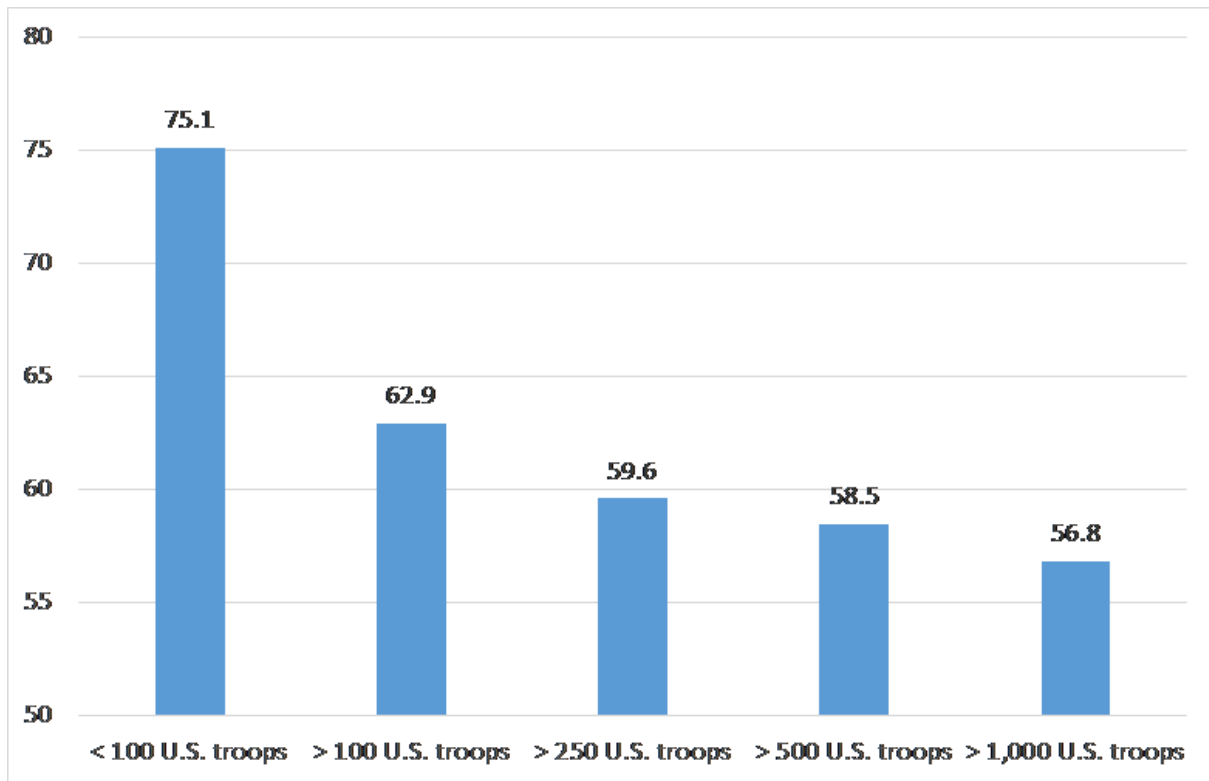
Furthermore, in the two-level models, while keeping *democracy* and *conscription*, we add three additional controls at the country level (level 2). First, as conscription might not fully capture the security environment, we also control the effects of contemporaneous war. We therefore include a dummy measure that takes the value 1 if the country-year in question is currently, or has recently been (that is, in one or more of the previous four years), involved in a war with at least 25 yearly battle deaths (*War25*). The dummy was computed on the basis of definitions and data provided by Uppsala University and Peace Research Institute Oslo (PRIO) (Gleditsch, Wallensteen, Eriksson, Sollenberg, & Strand, 2002). Second, we add a (logarithmically transformed) measure of the size of the economy (*GDP*), which should not least capture aggregate state power. Data are from the World Bank's World Development Indicators.^{xi} Finally, the ethnoreligious unity of a nation may matter. We therefore include a measure of religious fractionalization (*religious fraction*), which measures the probability that two randomly selected persons from any given state do not belong to the same religious group (Alesina, Devleeschauwer, Easterly, Kurlat, & Wacziarg, 2003).

Results and analysis

To obtain an immediate, straightforward impression of what the data convey, we first graphically present some patterns of relevance, using the aggregated version of *willingness to fight*. *Figure 1* shows simple averages on *willingness to fight* by number of forward-deployed U.S. troops. Starting to the left of the figure, we see that states hosting less than 100 troops, signifying a non-vital U.S. military presence, score very high (75.1) on *willingness to fight*. Scores rapidly drop when U.S. troop levels exceed 100. Numbers gradually decrease as we move to the right of the figure, reaching a low of 56.8 for countries with over 1,000 U.S. troops. This latter group is a motley one of 16 countries and 50 country-years, which

generally share the trait of having outsourced major parts of their defense to the the United States.

Figure 1. Willingness to fight, 1981–2014, average scores by U.S. troops deployment

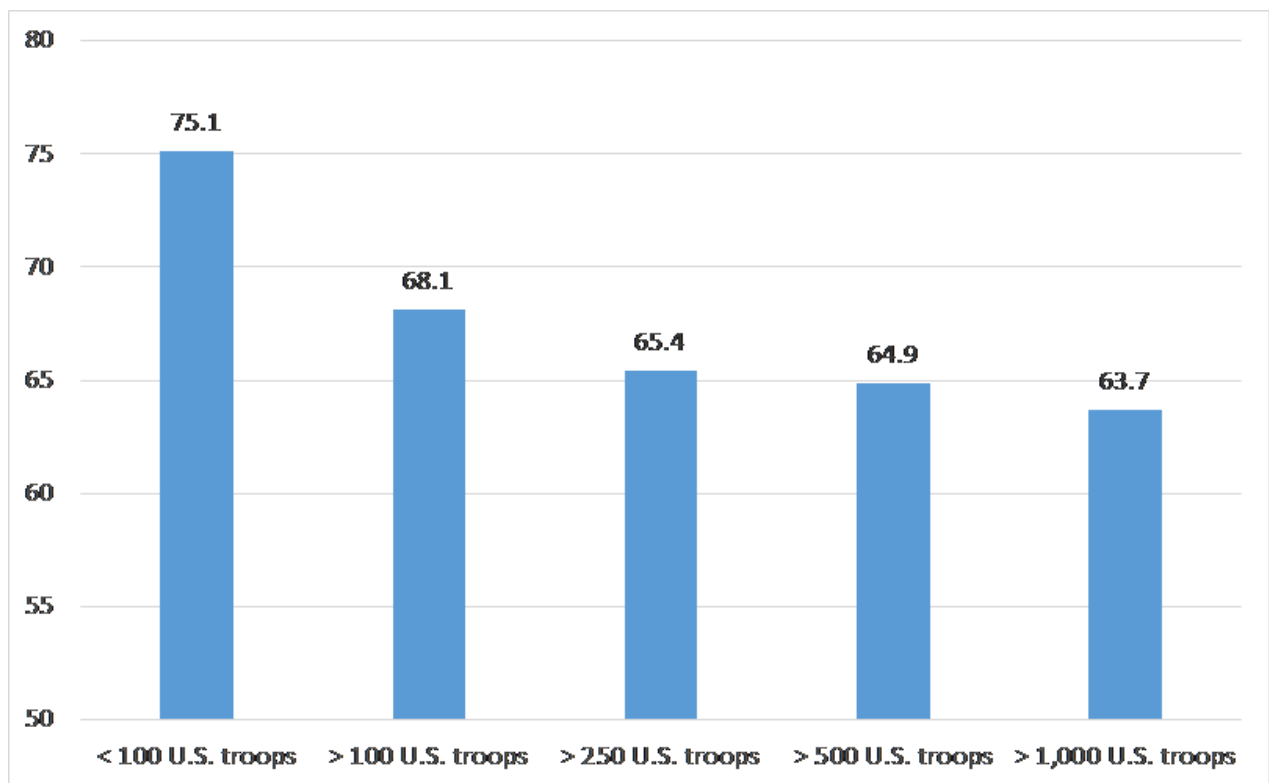


Notes: >1,000 troops, n=50; >500 troops, n=56; >250 troops, n=63; >100 troops, n=76; <100 troops, n=198; total n=274.

Figure 2, though, indicates that individual countries affect these results to a certain degree. If we exclude Germany and Japan, which together account for 12 country-years in our sample (West Germany represents one of the observations), values on *willingness to fight* increase around 5–7 percentage points for the four rightmost categories. This reflects the widespread pacifism with which the citizens of these two are often associated. It is not self-evident, however, that Germany and Japan should be treated as outliers in the sense that they *artificially* distort results for the analysis as a whole. On the one hand, this self-reported pacifism is in part surely predicated on a cultural dimension, what Puranen (2014, p. 270)

refers to as “shared historic experiences.” On the other hand, it is also a fact that the number of U.S. troops never drops below 30,000 for either of the two; thus, the tripwire mechanism and U.S. extended-deterrence credibility are here more or less automated. Therefore, we cannot really disregard the potential for free-riding incentives. To a lesser extent, this is also the case for Italy, a major host of U.S. troops and another World War II aggressor that suffered heavy destruction and defeat. Leaving out Italy’s four observations from the data, values on *willingness to fight*, depending on the cut-off point, increase between 1.7 and 2.5 percentage points when compared to *Figure 2* (not shown). Yet, even when all these three states are removed, there is still a marked difference in values on the dependent variable between major or medium hosts of U.S. troops, on the one hand, and unimportant hosts, on the other.

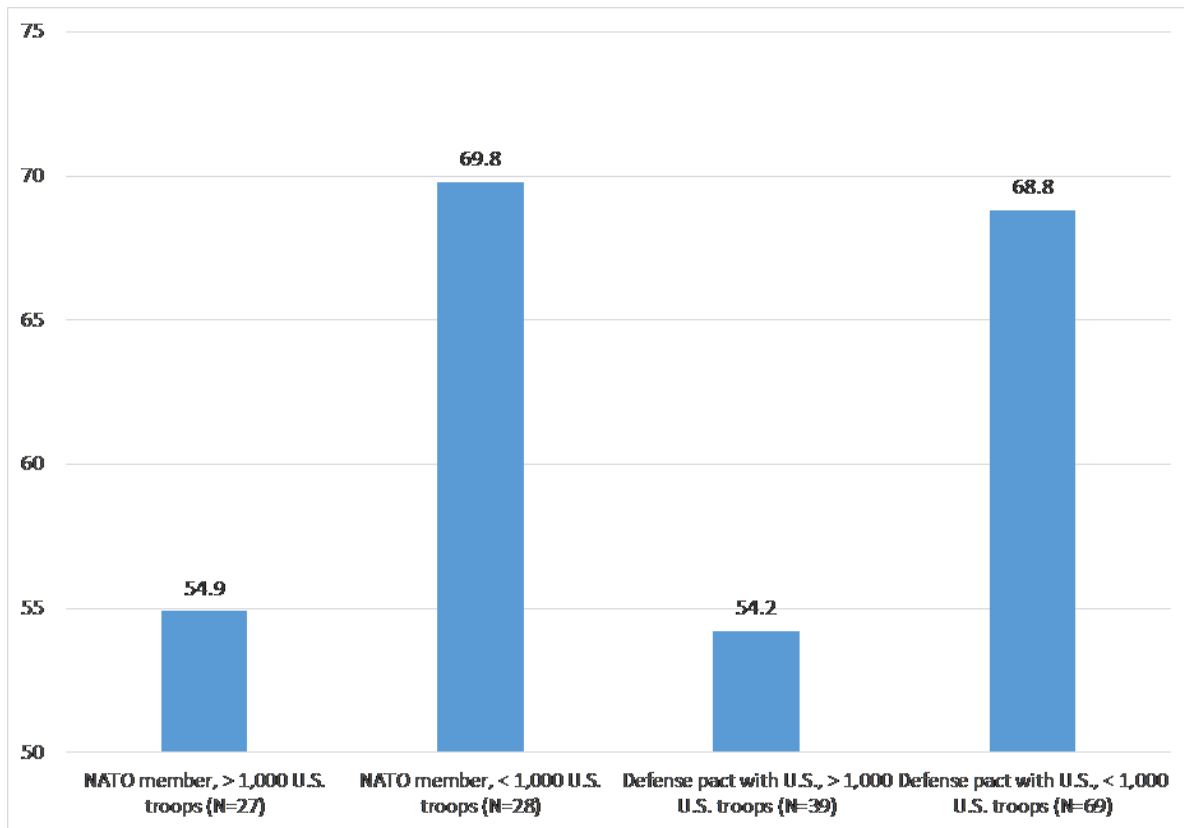
Figure 2. *Willingness to fight*, 1981–2014, average scores by U.S. troops deployment (Japan and Germany excluded)



Notes: >1,000 troops, n=38; >500 troops, n=44; >250 troops, n=51; >100 troops, n=64; <100 troops, n=198; total n=262.

Moving on to *Figure 3*, we may pose the question: Do free-riding inclinations and willingness to fight for one's country differ depending on the exact contents of one's country's alliance relationship to the United States? More concretely, do scores on *willingness to fight* for formal allies of Washington depend on whether one hosts U.S. troops? The figure indicates that it does: For both NATO member states and countries with a formal defense pact with the U.S. (a category that also includes NATO members), values on the dependent are noticeably lower – just under 15 percentage points lower – if U.S. troop levels are sizable (that is, above 1,000). Altering the cut-off points for troop deployments (not shown), results are somewhat but not greatly affected; even when 100 U.S. troops is the lower benchmark, there is still a difference of 11.5 (for NATO countries) and 9.1 (for the broader defense-pact category). Here, too, as we would expect, inter-category differences are partially compressed when Germany and Japan (and Italy) are excluded. This is particularly the case if we use 100 U.S. troops as a cut-off point, where differences vanish completely for the defense-pact category. But taken as a whole, results suggest that tripwire mechanisms, credibility of U.S. defense promises, and client-states' impulses to free-ride seem to appear even at a fairly low level – probably a few hundreds – of forward-deployed U.S. troops.

Figure 3. *Willingness to fight*, 1981–2014, average scores, by U.S. military alliances and U.S. troops deployment, 1,000 troops cut-off



Simple bivariate analyses can only take us so far. We also need to place the relationship between U.S. troops and *willingness to fight* in a multivariate setting. This is done in *Tables 2 –3*. In *Table 2*, the dependent variable is recoded from percentages into proportions. Since this requires predicted values to range between 0 and 1, we employ a generalized linear (GLM) model (with a logit link, binomial distribution, and robust standard errors) (Baum, 2008). We depict six versions of the base model, each containing three salient controls, where the specification of the main independent variable differs between models.^{xii}

Table 2. The impact of *USTroops* on *willingness to fight*, 1981–2014, base model

	1	2	3	4	5	6
	willingness to fight	willingness to fight	willingness to fight	willingness to fight	willingness to fight	willingness to fight
	1981-2014	1981-2014	1981-2014	1981-2014	1981-2014	1981-2014
USTROOPSL	-0.102** (-3.31)					
USTROOPSD1000		-0.758***				

		(-3.83)				
USTROOPSD500			-0.722***			
			(-3.68)			
USTROOPSD100				-0.471**		
				(-2.69)		
NATO					-0.344	
					(-1.77)	
USDEFPACT						-0.326*
						(-2.05)
DEMOCRACY	-0.032**	-0.033**	-0.032**	-0.034**	-0.033*	-0.033**
	(-2.68)	(-3.08)	(-3.01)	(-3.00)	(-2.19)	(-2.61)
CONFIDENCE MILITARY	-1.068***	-1.018***	-1.024***	-1.046***	-1.013***	-0.898***
	(-6.69)	(-6.58)	(-6.75)	(-6.66)	(-5.93)	(-4.48)
CONSCRIPTION	0.330*	0.399**	0.355**	0.340*	0.355*	0.283
	(2.57)	(3.08)	(2.80)	(2.46)	(2.26)	(1.86)
CONSTANT	3.861***	3.404***	3.432***	3.502***	3.357***	3.229***
	(10.74)	(9.84)	(10.09)	(9.97)	(8.55)	(7.42)
OBSERVATIONS	217	232	232	232	229	229
COUNTRIES	84	89	89	89	88	88
PEARSON	15.246	15.753	16.050	17.691	18.427	18.070
(1/DF) PEARSON	0.074	0.071	0.072	0.080	0.084	0.083

Notes: GLM regression with logit link, the binomial family, and robust standard errors; z-scores in parentheses; all models are run with dummies for WVS waves (not shown); * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 2 shows the basic models. In column 1, the logged version of the independent measure (*UStroopsL*) is significant at the 0.01 level. In columns 2–4, we use dummies with different thresholds. The strictest one codes as 1 country-years hosting at least 1,000 U.S. soldiers. That measure is highly significant in the expected direction (column 2), as is *UStroopsD500* (column 3). Thereafter, the significance level decreases for the independent associated with 100 troops or more (column 4). The dummy for NATO has no significant effect on *willingness to fight* (column 5), whereas the broader measure of alliance relationship with the United States is weakly significant in the expected direction (column 6). Taken as a whole, and keeping in mind that the low N of the analysis should increase our confidence in the robustness of any significant results, Table 2 indicates that there does exist a “free-riding” effect from stationing U.S. troops. This effect, it seems, is more pronounced for countries providing Washington with bases; it is considerably weaker for alliance links *per se*. The

credibility of U.S. pledges to defend allies is not necessarily self-evident or automatic, as has always been a worry to Washington’s partners. The forward-deployment of substantial numbers of U.S. troops seemingly alters the equation, though, probably leading both to increased U.S. credibility and, consequently, to a lower willingness among the host country’s citizens to fight for their own nation. Free-riding in a non-material sense, therefore, might be intimately linked to the “tripwire” mechanism provided by U.S. military bases.

The control variables generally “behave” as expected. The most consistent determinant of *willingness to fight* is *confidence military*, the coefficient of which in all these, and in all later, models is always significant at the highest level of confidence. But both *democracy* and *conscription* are (with one exception) always significant at the 0.01 or 0.05 level. Hence, military recruitment policies, regime type, and the status of a state’s armed forces help shape citizens’ attitudes toward military action.

Table 3 reports results from the multilevel analysis. The use of multilevel modeling is quite advantageous as the data are of a hierarchical structure; that is to say, individual respondents are a subset of country-years. Multilevel modeling enables us to account for variance in a dependent variable measured at the lowest level, by taking the higher level(s) into consideration (Steenbergen & Jones, 2002, p. 219). Here, the WVS respondents constitute level 1 and the country-years make up level 2. Since our dependent variable is dichotomous, we make use of multilevel *logistic* regression. Our analysis encompasses 205 country-years and more than 200,000 respondents. Of note is again the relatively low *N* at the country-year level. Standard errors for this batch of variables are calculated based on the level-2 *N*, so it takes rather strong effects to produce significant results (Mehmetoglu & Jakobsen, 2016).

Table 3. The impact of *UStroops* on *willingness to fight*, 1981–2014, multilevel model

1	2	3	4	5	6
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	willingness to fight	willingness to fight	willingness to fight	willingness to fight	willingness to fight	willingness to fight
<i>LEVEL 1</i>	1981-2014	1981-2014	1981-2014	1981-2014	1981-2014	1981-2014
WOMAN	-0.651*** (-58.50)	-0.652*** (-58.78)	-0.652*** (-58.78)	-0.652*** (-58.78)	-0.652*** (-58.78)	-0.652*** (-58.78)
AGE	-0.009*** (-26.36)	-0.010*** (-26.70)	-0.010*** (-26.70)	-0.010*** (-26.68)	-0.010*** (-26.68)	-0.010*** (-26.70)
INCOME	0.009*** (3.74)	0.010*** (3.91)	0.010*** (3.91)	0.010*** (3.90)	0.010*** (3.90)	0.010*** (3.86)
NATIONAL PRIDE	0.518*** (65.63)	0.518*** (65.89)	0.518*** (65.90)	0.518*** (65.91)	0.519*** (65.91)	0.519*** (65.93)
CONFIDENCE MILITARY	0.343*** (52.36)	0.345*** (52.75)	0.345*** (52.75)	0.345*** (52.74)	0.345*** (52.74)	0.344*** (52.71)
PRO-CHOICE	-0.006*** (-6.92)	-0.006*** (-7.31)	-0.006*** (-7.31)	-0.006*** (-7.29)	-0.006*** (-7.28)	-0.006*** (-7.28)
<i>LEVEL 2</i>						
USTROOPSL	-0.057** (-2.65)					
USTROOPSD1000		-0.533*** (-3.98)				
USTROOPSD500			-0.452** (-3.42)			
USTROOPSD100				-0.193 (-1.61)		
NATO					-0.138 (-1.03)	
USDEFPACT						-0.399** (-3.37)
DEMOCRACY	-0.043*** (-4.12)	-0.041*** (-4.10)	-0.040*** (-4.02)	-0.041*** (-3.99)	-0.040*** (-3.72)	-0.031** (-2.90)
CONSCRIPTION	0.545*** (5.37)	0.569*** (5.72)	0.547*** (5.47)	0.531*** (5.20)	0.536*** (5.22)	0.484*** (4.80)
WAR25	0.230 (1.95)	0.223 (1.93)	0.218 (-1.87)	0.247* (2.08)	0.228 (1.91)	0.192 (1.63)
RELIGIOUS FRACTION	-0.661** (-2.97)	-0.680** (-3.13)	-0.646** (-2.93)	-672** (-2.97)	-0.741** (-3.28)	-0.842*** (-3.79)
GDP	-0.034 (-1.01)	-0.039 (-1.30)	-0.043 (-1.43)	-0.068* (-2.23)	-0.076* (-2.54)	-0.047 (-1.58)
CONSTANT	0.486 (0.58)	0.443 (0.58)	0.548 (0.70)	1.160 (1.48)	1.370 (1.78)	0.812 (1.08)
LEVEL 2 VARIANCE	0.48 (0.05)	0.46 (0.05)	0.47 (0.05)	0.49 (0.05)	0.49 (0.05)	0.47 (0.05)
LEVEL 1 N	201,791	202,856	202,856	202,856	202,856	202,856
LEVEL 2 N	204	205	205	205	205	205

LOG LIKELIHOOD	-101,685	-102,173	-102,175	-102,179	-102,180	102,175
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Notes: z-scores in parentheses; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

With regard to the key variables of interests, the results depicted in *Table 3* correspond fairly well with *Table 2* above. The logged version of *UStroops* is here too significant at the 0.01 level, whereas the dummy for 1,000 U.S. troops is still significant at the highest level of confidence. Some differences between the two sets of models nonetheless apply. First, the 0.001 confidence level is now also reached by *UStroopsD500*. Second, *UStroopsD100* exhibits no significant relationship to the dependent in the multilevel context. Third, while the NATO dummy remains insignificant, *USdefpact* now attains significance at a higher level of confidence than in *Table 2*. Of the control variables at level 2, religious fractionalization seems to be a potent predictor of *willingness to fight* (unlike *war25* and *GDP*, both of which are generally insignificant).

We may now conclude that the presence of U.S. troops does indeed correlate with the willingness of citizens to fight for their country. Additional testing for curvilinearity, using both dummies and squared terms, revealed that the relationship is reasonably linear. Still, the correlation decreases somewhat for higher numbers of U.S. troops; and, as for the lower numbers, the relationship is insignificant (in the multilevel model). We could interpret this as suggesting that there does exist a threshold of U.S. troops above which a host state's citizens become inclined to believe that their state's defense has been credibly outsourced to the United States. Perhaps we can cautiously conclude that 100 U.S. troops probably do not suffice in that respect (we must keep in mind that *UStroopsD100* encompasses all country-years with more than 100 U.S. military personnel, including major hosts). But we can also state that 500 troops likely do. This number incidentally also approximates the number of troops in one battalion. It is perhaps not unreasonable to assume that when the number of forward-deployed U.S. troops reaches just such a battalion level – that is, the level associated

with an independently-functioning military unit – effects on other variables, in this case “free-riding” inclinations among the host-country population, can increase quite powerfully (Allen & Flynn, 2013, p. 276).

Sensitivity analysis

To increase our confidence that the results reported above are not sensitive to different model specifications, we performed a number of robustness checks, summarized in brevity here. First, we checked whether earlier results were fundamentally driven by possible “pacifist outliers,” namely Germany and Japan. Using the aggregate-data models (*Table 2*) as our point of departure, we inserted a dummy for these two states. The dummy does have a major impact on the dependent. It is also clear that its inclusion weakens the effect of our main independents, four of which are now insignificant. The remaining two – those representing a 1,000- and 500-troops threshold, respectively – are still significant at the 0.01 level, though. (We also tested for any interaction effect between the Japan/Germany dummy and *UStroopsL*; however, because of the low number of country-years with the value 1 on the dummy, it was not significant.)

Second, while most states that harbor U.S. troops do so voluntarily, sometimes the troops were, at least originally, part of an invasion force and/or deployed in the immediate aftermath of a war (Machain & Morgan, 2013, p. 103). The deployment rationales, and hence possibly also any free-riding incentives, therefore differ between these two broad types of cases. The most noteworthy such cases include Panama and Afghanistan (neither of which are included in the WVS), Iraq (which was not included in the previous analyses), and countries emanating from the former Yugoslavia. We therefore ran the base models without Bosnia and Herzegovina, Croatia, Macedonia, and Serbia (Slovenia has never had a

substantial U.S. troops presence). In terms of levels of significance, results on the U.S. troops and alliance variables stayed exactly the same as in *Table 2*.

Third, what counts as an alliance can be somewhat ambiguous. Following Michael Beckley (2015, p. 23), we expanded the scope of *USdefpact* so as also to include Israel, Taiwan, and Pakistan. This did not alter the result, however; *USdefpact* remained significant at the .05 level. Finally, and this time using the multivariate analysis (*Table 3*) as our point of departure, we employed alternative measures of, *inter alia*, the security environment, but this did not alter the main results either. We tested five additional variables, all of which were positive but insignificant: a dummy of militarized interstate disputes (MID); a (broad) measure of interstate war; the number of armed forces personnel per capita; military expenditures as a share of GDP; and a variable measuring economic growth as a three-year moving average.^{xiii}

In summary, therefore, it seems evident that the presence of U.S. troops has an impact on host-country citizens' willingness to fight for their country – in particular when troop numbers approaches the level of a battalion – irrespective of the (combinations of) controls we use, and irrespective of whether we use aggregated country-level data or a multilevel approach.

Conclusion

Current President Donald Trump has consistently asked the U.S.'s allies to contribute far more to common defense efforts. For example, in the foreign policy speech in April 2016, during the Republican Party presidential primaries, he asserted that “our allies are not paying their fair share” and that they “must contribute toward their financial, political, and human costs ... of our tremendous security burden”; and that if they do not, “the U.S. must be

prepared to let these countries defend themselves” (New York Times, 2016). This message has since been repeated on numerous occasions, with the president, in a May 2017 meeting with NATO allies in Brussels, staying tellingly silent with regard to his endorsement or non-endorsement of the NATO Treaty’s critical Article 5 (New York Times, 2017). Perhaps unprecedented in their explicit threat to abandon allies that don’t fulfill their obligations, President Trump’s admonitions still reflect what has in reality been a “perpetual burden-sharing debate,” in particular within NATO (Ringsmose 2010, p. 319).

Burden-sharing and its antonym, free-riding, are often taken as purely pecuniary concepts. This is usually also the case when the terms are operationalized in the literature. Money is not all that matter, though; history is replete with examples of *non-material* factors playing the decisive role in battles, in wars, and in deterrence. Balance of resolve, the “strength of will” (von Clausewitz 1832/2007, p. 16), “patriotic altruism” (Niebuhr 1932/2005, p. 62), “national character” and “national morale” (Morgenthau 1948/2006) – these are all varieties of the same overriding theme whose centrality to successful defense arguably often compares favorably to the relative size of military budgets. We have explored herein, therefore, one indicator of national willpower particularly germane to the burden-sharing or free-riding issue, an indicator that has served as the dependent variable in this study: citizens’ willingness to fight for their country.

The empirical analyses, taken as a whole, have shown that willingness to fight is significantly related to the presence of forward-deployed U.S. troops. In particular when U.S. troop levels are fairly voluminous – it seems as troop numbers, with respect to the issues under study here, have somewhat diminishing returns when they reach 500, and maybe even a couple of hundreds – they become associated with a low willingness to fight. This result is unambiguously clear in the bivariate analysis; but it also stands when we control for other salient determinants of war willingness. Formal alliance ties to the United States, for their

part, do not seem to depress willingness to fight to the same degree as do U.S. military bases. The latter, one would think, function as a tripwire that credibly signals to a host country that any attack on it will likely draw Washington into the fight. Such “quasi-automatic” credibility is something that defense treaties alone cannot provide.

Those who argue that allies free-ride on the United States’s defense guarantees are therefore not necessarily in the wrong, whether they point to material or non-material burden-sharing. But matters are surely more complicated than the burden-sharing, free-riding distinction would suggest at first glance. Resolving this “eternal” intra-alliance controversy is inherently difficult – perhaps even impossible. Alliances, and especially those which involve U.S. troops stationed at bases on the client’s soil, come with trade-offs for both parties. From the perspective of the host nation, though certainly also depending on its perceptions of the overall security environment, U.S. defense guarantees are a welcome good. Still, hosting bases inevitably involves surrendering parts of one’s sovereignty and freedom of action. Bases are also associated with other *unwelcome* externalities – including environmental, social, and even security-related ones (as bases may provide prime targets for adversaries) – that invite domestic opposition and hence inflict political costs on the host government (Calder, 2007; Lutz, 2009; Vine, 2015). Voluntarily accepting such costs requires some form of compensation from the patron; an *unequal* defense burden, where the patron carries the main load (whether in a material or non-material sense, or both), is perhaps – again from the perspective of the host – one important part of a “natural” bargaining equilibrium.

From the perspective of the patron, things are not necessarily all black-and-white either. Previous empirical literature has shown that free-riding (in a material sense) has generally been an issue in U.S. alliance relationships, although it is an issue whose salience might fluctuate over time (Olson & Zeckhauser, 1966; Oneal, 1990; Sandler & Shimizu, 2014) as well as among nations (Zyla, 2016). It is also true that the United States has often

stood out, compared to its allies, with regard to defense expenditures whether measured in absolute levels or relative to GDP. However, alliances or forward-deployed military bases are not acts of charity on the part of Washington. They are, in fact, key parts of a long-standing U.S. grand strategy that stresses the centrality of a global presence to the realization of the United States's security and economic goals. Defense commitments and overseas military bases, though costly, augment U.S. influence abroad and contribute to upholding *Pax Americana*. Patron and client both gain some, and they both lose some, from such relationships. For that reason alone, we can surely expect that the debates and bargaining about defense burdens and free-riding will continue for a long time.

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Notes

i

When denoting security goods provided to alliance members, Olson and Zeckhauser (1966) alternate between using “public,” “collective” and “organizational.” Such goods, of course, are really “public” only within a given group or alliance (see also Olson, 1965, 38, footnote 58).

ii

In January 2017, the United States began the deployment of an army brigade to Poland, to bolster NATO deterrence against Russia; see <https://pl.usembassy.gov/abct/>.

iii

Data are available from: <http://www.sipri.org/research/armaments/milex>.

iv

A handful of empirical studies have investigated the determinants of war willingness (Anderson, Getmansky, & Hirsch-Hoefler, 2017; Diener & Tov, 2007; Inglehart, Puranen, & Welzel, 2015; Jakobsen, Jakobsen, & Ekevoid, 2016; Paez et al., 2008; Puranen, 2014; Torgler, 2003). One of these, while focusing mainly on the impact of regime type, also includes a dummy for the presence of U.S. troops (with a 1,000-troops threshold), which, in their multilevel analysis, is shown to suppress war willingness somewhat (Jakobsen, Jakobsen, & Ekevoid, 2016). In the next section we follow up on this finding, investigating more extensively the relationship between military-security ties with the U.S. and non-material burden-sharing and free-riding.

v

Data are available from the authors on request.

vi

For further information on the WVS and its methods and sampling procedures, see <http://www.worldvaluessurvey.org/wvs.jsp>. The datasets are made available through the Norwegian Social Science Data Services (NSD). Neither Ronald Inglehart, WVS, or NSD are responsible for the analysis of these data, or for the analyses and conclusions made in this article.

vii

For the years 1981–2003, data are organized and provided by Kane (2004) and can be found at: <https://www.heritage.org/defense/report/global-us-troop-deployment-1950-2003>. Data for 2004–2007 are retrieved from *Vetfriends*: <https://www.vetfriends.com/US-deployments-overseas/>. For the years 2008–2014, we extracted data from the U.S. Defense Manpower Data Center, which regularly publishes updated data on U.S. overseas troops: https://www.dmdc.osd.mil/appj/dwp/dwp_reports.jsp.

viii

USdefpact includes NATO members, members of the Organization of American States (OAS), Japan, South Korea, the Philippines, and Australia. Broadly following the categorization used by the Correlates of War (COW) Project's Alliances Data Set (Gibler, 2009) – which can be accessed at: <http://www.correlatesofwar.org/news/alliances-data-set-v4-1-available-1> – an alliance is here conceived of in rather narrow terms. What constitutes a(n) (formal) alliance is not always straightforward, though, and “the precise arrangements embodied in different alliances vary enormously” (Walt, 2009, p. 86). In the case of the U.S. and Israel, for example, a military alliance has never been signed “because there has never been a question that the United States would provide military assistance to Israel in a crisis” (Morrow, 1991, pp. 906–7). In the sensitivity analysis we therefore add Israel, along with Taiwan and Pakistan, so as to commensurate with Michael Beckley's (2015, p. 23) extended list of U.S. defense pacts.

ix

Data are available from: <http://www.systemicpeace.org/polity/polity4.htm>.

x

We used, as a base, data from the Military Recruitment Dataset (Nathan Toronto, Military Recruitment Data Set, codebook, version 2005.1), which provides information up until 2004/2005 (depending on the country) and which is available at: <http://fms.leavenworth.army.mil/documents/mildat/RecruitmentCodebook.pdf>. We used *Chartsbin* for 2010 and 2011 (see: <http://chartsbin.com/view/1887>), and normally also for the 5–6 previous years. We generally drew on the *CIA World Factbook* for the years 2012–2014, see: <https://www.cia.gov/library/publications/the-world-factbook/fields/2024.html>. Any missing country-years were set to the same values as those of these three sources if they corresponded with each other. If they did not, we used alternative sources of information about the exact year of change in military recruitment policy.

xi

Available at: <http://data.worldbank.org/>.

xii

Note that the relatively low N means that we cannot employ a fixed-effect model, nor one that measures changes over time between values on the key variables.

xiii

MID data are available at: <http://www.correlatesofwar.org/data-sets/MIDs>. We gave country-years the value 1 if they had been involved in a MID in the year in question or one of the two previous years. Data on interstate wars are from Uppsala University and from the Peace Research Institute Oslo: <http://ucdp.uu.se/downloads/>. The variable we use includes participation as an external actor intervening in a

civil war. Data on troops per capita and economic growth are from the World Bank Development Indicators. Data on military expenditures are from Stockholm International Peace Research Institute: <http://www.sipri.org/research/armaments/milex>.